

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Tuesday, January 12, 2010 12:21 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: BHSC

Mary,

Thank you for the info. I'd love to talk to someone that has been involved with BHSC. Also, I am looking forward to the tripartite review. Thanks for the update.

Amanda

From: "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov>
To: Amanda Persad/DC/USEPA/US@EPA
Date: 01/12/2010 11:02 AM
Subject: RE: BHSC

Hi Amanda,

I am somewhat familiar with BHSC. I have not participated with them, but others from NIOSH have, and I can refer you to them for more info about their activities if you'd like.

I don't currently have plans to attend their meeting. I am hoping to present the findings of our new cohort analyses at a larger scientific meeting (can't say much until I learn whether our abstract was accepted).

Coincidentally, you will be receiving a draft copy of our exposure assessment and cohort analysis manuscript by tomorrow. This is for "tripartite" review (industry, labor, and government) before we submit them to a journal.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov
[\[mailto:Persad.Amanda@epamail.epa.gov\]](mailto:Persad.Amanda@epamail.epa.gov)
Sent: Tuesday, January 12, 2010 9:42 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: BHSC

Good morning Mary,

And Happy New Year! I was wondering if you were familiar with the Beryllium Health and Safety Committee (BHSC). I received an email from Paul Wambach (DOE) about this this committee. Do you know if it's an advocacy group, have you participated in any of their meetings, are you planning to present findings from the latest study at their Spring 2010 meeting (<http://www.sandia.gov/BHSC/documents/BHSCNEWSNov-Dec2009a.pdf>)?

Any info you can provide would be greatly appreciated.

Also, in case I'm asked by my management, is the first paper from the new study still on track for January? Will there be a poster or presentation at SOT this year? Again, I apologize for asking about the new study repeatedly. I just want to be prepared in case my management asks.

Thanks!

Amanda

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Tuesday, January 26, 2010 1:22 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Re: Draft manuscripts related to beryllium cohort study
Attachments: Manuscript Review.doc

Dr. Schubauer-Berigan,

Attached are my comments based on the review of the manuscript entitled "Cohort mortality study of workers at seven beryllium processing plants: update and associations with cumulative and maximum exposure." I enjoyed reading it and I found that just about every question I had while reading it, was answered as I read further! Thank for the opportunity to review the manuscript.

I do have one question, just to help me better understand the methods used. In the manuscript cumulative exposure was calculated by multiplying the DWA by 5/7 thus converting exposure for 5 day work week. Is this type of value a value that OSHA would subsequently use directly for their risk assessments? Thus, cumulative exposure would mean occupational cumulative exposure of 8 hrs/day, 5 days a week? I just want to make sure I have the right interpretation, because in our calculations here in IRIS, cumulative exposure is defined a little differently because we determine risks based on 24 hour exposure, 7 days/week. Just want to make sure.

Thanks again!

Amanda

Amanda S. Persad, Ph.D., DABT

Epidemiologist

Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email:persad.amanda@epa.gov

Telephone: 919 541 9781

(See attached file: Manuscript Review.doc)

From: "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov>

To: Amanda Persad/DC/USEPA/US@EPA

Cc: "Couch, James (CDC/NIOSH/DSHEFS)" <ahy1@CDC.GOV>

Date: 01/12/2010 01:45 PM

Subject: Draft manuscripts related to beryllium cohort study

Dear Dr. Persad:

I am enclosing a copy of a draft manuscript, entitled "Cohort mortality study of workers at seven beryllium processing plants: update and associations with cumulative and maximum exposure," which describes research conducted at the National Institute for Occupational Safety and Health (NIOSH). This manuscript describes an updated cohort study of workers at seven beryllium processing plants, including exposure-response information for workers at three of the plants, and has been reviewed separately for scientific merit as part of the NIOSH peer review process. Also enclosed from my colleague James Couch is a related draft manuscript, entitled "Development of retrospective quantitative and qualitative job exposure matrices for exposures at a beryllium processing facility," which describes the development of a job-exposure matrix at one of the facilities included in the epidemiologic study.

We are sending you these draft manuscripts in accordance with the NIOSH policy on tripartite review. Please do not cite, quote, or distribute these manuscripts, which contain privileged information.

We would appreciate receiving any comments you may have by January 28, 2010, either via e-mail or at the address below. We will assume you have no comments if I have not received them by that date.

Please do not hesitate to contact me at 513-841-4251 or at zcg3@cdc.gov if you have any questions.

<<Schubauer-Berigan-tripartite.pdf>> <<Couch Elmore JEM Tripartite Review.pdf>> Sincerely,

Mary

Mary K Schubauer-Berigan, PhD
Senior Research Epidemiologist
National Institute for Occupational Safety and Health Division of Surveillance, Hazard Evaluations, and Field Studies
4676 Columbia Pkwy, MS-R15
Cincinnati, OH 45226

V: 513-841-4251

F: 513-841-4486

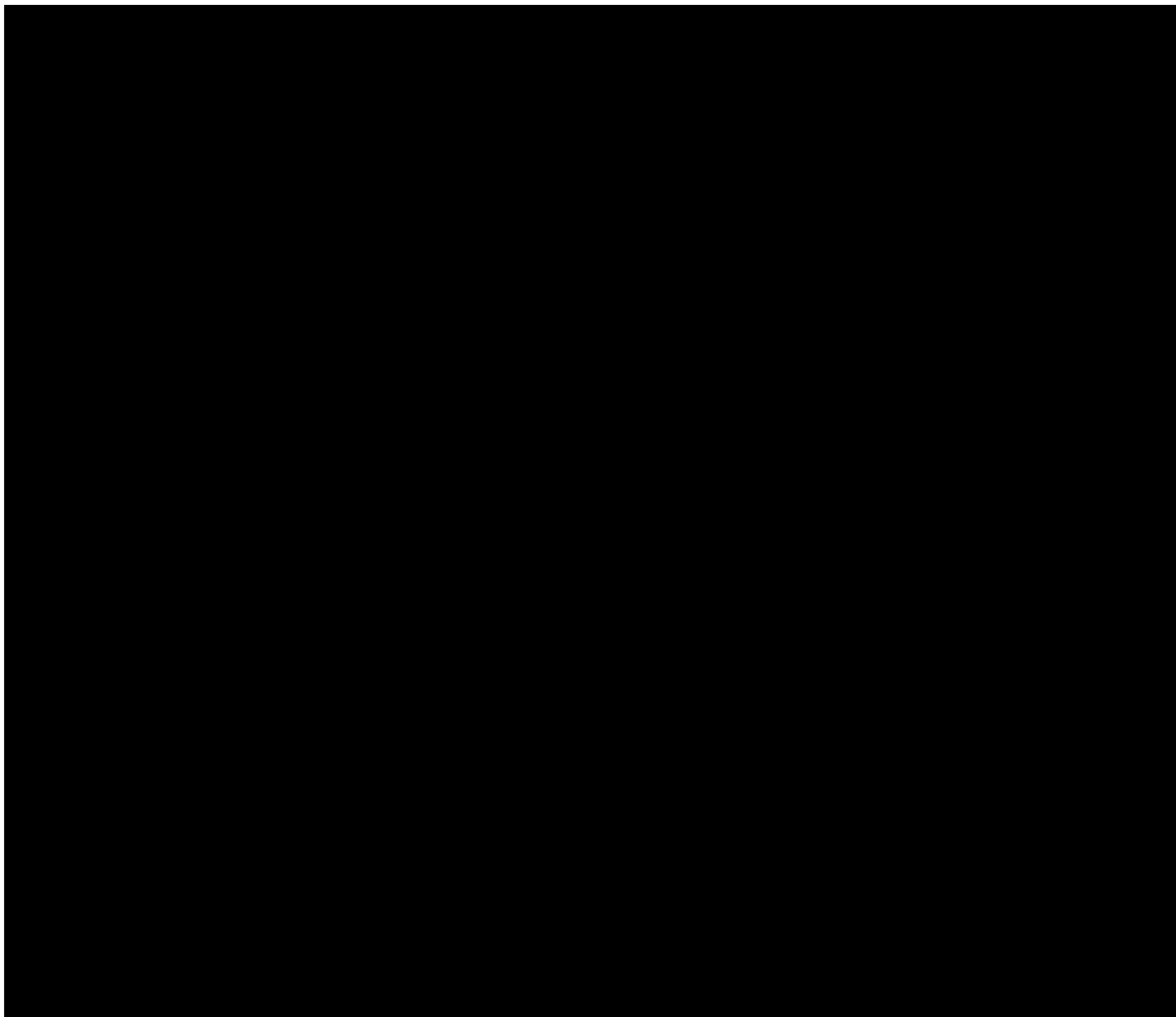
E: zcg3@cdc.gov

[attachment "Schubauer-Berigan-tripartite.pdf" deleted by Amanda Persad/DC/USEPA/US] [attachment "Couch Elmore JEM Tripartite Review.pdf" deleted by Amanda Persad/DC/USEPA/US]

Manuscript Review

Reviewer: Amanda S. Persad, National Center for Environmental Assessment, U.S. EPA

Title: Cohort mortality study of workers at seven beryllium processing plants: update and associations with cumulative and maximum exposure



Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, January 13, 2010 8:12 AM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Draft manuscripts related to beryllium cohort study

No, just comments as you choose.

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, January 12, 2010 3:11 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Re: Draft manuscripts related to beryllium cohort study

Thanks Mary. Is there any special review form or format?

From: "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov>
To: Amanda Persad/DC/USEPA/US@EPA
Cc: "Couch, James (CDC/NIOSH/DSHEFS)" <ahy1@CDC.GOV>
Date: 01/12/2010 01:45 PM
Subject: Draft manuscripts related to beryllium cohort study

Dear Dr. Persad:

I am enclosing a copy of a draft manuscript, entitled "Cohort mortality study of workers at seven beryllium processing plants: update and associations with cumulative and maximum exposure," which describes research conducted at the National Institute for Occupational Safety and Health (NIOSH). This manuscript describes an updated cohort study of workers at seven beryllium processing plants, including exposure-response information for workers at three of the plants, and has been reviewed separately for scientific merit as part of the NIOSH peer review process. Also enclosed from my colleague James Couch is a related draft manuscript, entitled "Development of retrospective quantitative and qualitative job exposure matrices for exposures at a beryllium processing facility," which describes the development of a job-exposure matrix at one of the facilities included in the epidemiologic study.

We are sending you these draft manuscripts in accordance with the NIOSH policy on tripartite review. Please do not cite, quote, or distribute these manuscripts, which contain privileged information.

We would appreciate receiving any comments you may have by January 28, 2010, either via e-mail or at the address below. We will assume you have no comments if I have not received them by that date.

Please do not hesitate to contact me at 513-841-4251 or at zcg3@cdc.gov if you have any questions.

<<Schubauer-Berigan-tripartite.pdf>> <<Couch Elmore JEM Tripartite Review.pdf>> Sincerely,

Mary

Mary K Schubauer-Berigan, PhD
Senior Research Epidemiologist
National Institute for Occupational Safety and Health Division of Surveillance, Hazard Evaluations, and Field Studies
4676 Columbia Pkwy, MS-R15
Cincinnati, OH 45226

V: 513-841-4251
F: 513-841-4486
E: zcg3@cdc.gov

[attachment "Schubauer-Berigan-tripartite.pdf" deleted by Amanda Persad/DC/USEPA/US] [attachment "Couch Elmore JEM Tripartite Review.pdf" deleted by Amanda Persad/DC/USEPA/US]

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Friday, April 09, 2010 3:00 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS); Couch, James (CDC/NIOSH/DSHEFS); 'Martin Petersen'
Subject: FW: Beryllium lung cancer modeling manuscript

FYI, second set of tripartite comments.

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Friday, April 09, 2010 3:00 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Re: Beryllium lung cancer modeling manuscript

Mary,

Sorry to respond on the last day. Just wanted to let you know that I don't have any comments on your latest manuscript. It was well-written and very detailed.

Just out of curiosity, I would like to know more about the values you got for the interaction runs.

Thanks for the opportunity to review your manuscript.
Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist
Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email:persad.amanda@epa.gov
Telephone: 919 541 9781

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| From: |
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>-----|
| "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov> |
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| To: |
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| Amanda Persad/DC/USEPA/US@EPA |
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| Date: |

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>-----|
|03/23/2010 11:21 AM |
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| Subject: |
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|Beryllium lung cancer modeling manuscript |
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Dear Amanda,

Please find attached a third manuscript for your review under NIOSH's tripartite review policy. We would appreciate receiving comments on this manuscript by April 9, 2010. Again, we ask that you not distribute the manuscript, as it contains privileged, pre-publication information.

Best wishes,

Mary

<<SchubauerLungCancerBeryllium-for tripartite.pdf>>

Mary K Schubauer-Berigan, PhD

Senior Research Epidemiologist

National Institute for Occupational Safety and Health

Division of Surveillance, Hazard Evaluations, and Field Studies

4676 Columbia Pkwy, MS-R15

Cincinnati, OH 45226

V: 513-841-4251

F: 513-841-4486

E: zcg3@cdc.gov[attachment "SchubauerLungCancerBeryllium-for tripartite.pdf" deleted by Amanda Persad/DC/USEPA/US]

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Tuesday, March 23, 2010 3:35 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Re: Beryllium lung cancer modeling manuscript

Mary,
Thank you very much.
Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist
Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of
Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email: persad.amanda@epa.gov
Telephone: 919 541 9781

From: "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov>
To: Amanda Persad/DC/USEPA/US@EPA
Date: 03/23/2010 11:21 AM
Subject: Beryllium lung cancer modeling manuscript

Dear Amanda,

Please find attached a third manuscript for your review under NIOSH's tripartite review policy. We would appreciate receiving comments on this manuscript by April 9, 2010. Again, we ask that you not distribute the manuscript, as it contains privileged, pre-publication information.

Best wishes,

Mary

<<SchubauerLungCancerBeryllium-for tripartite.pdf>>

Mary K Schubauer-Berigan, PhD

Senior Research Epidemiologist

National Institute for Occupational Safety and Health

Division of Surveillance, Hazard Evaluations, and Field Studies

4676 Columbia Pkwy, MS-R15

Cincinnati, OH 45226

V: 513-841-4251

F: 513-841-4486

E: zcg3@cdc.gov[attachment "SchubauerLungCancerBeryllium-for tripartite.pdf" deleted by Amanda Persad/DC/USEPA/US]

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Thursday, March 18, 2010 8:43 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Draft manuscripts related to beryllium cohort study

Mary,
Thanks for the update.
Amanda

From: "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov>
To: Amanda Persad/DC/USEPA/US@EPA
Date: 03/17/2010 05:23 PM
Subject: RE: Draft manuscripts related to beryllium cohort study

Hi Amanda,

Not yet. I will let you know when I hear something. You will be getting the second epi analysis manuscript (describing the modeling analysis) for tripartite review very shortly.

Mary

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wed 3/17/2010 2:46 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Re: Draft manuscripts related to beryllium cohort study

Dr. Schubauer-Berigan,

Just wanted to touch base with you to check if your articles on beryllium have been accepted yet by a journal. I hope all is well otherwise.

Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist

Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email: persad.amanda@epa.gov

Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, October 07, 2009 10:42 AM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: New Beryllium Study

Hi Amanda,

No, we have been slightly delayed. My current estimate is that it will be available in early January for tripartite review.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, October 05, 2009 11:28 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: New Beryllium Study

Mary,

I was just wondering if the tripartite review of the new beryllium study is still slated to occur this month. Thanks.
Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist
Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of
Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email: persad.amanda@epa.gov
Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, July 29, 2009 3:03 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Subject: RE: Follow up on the beryllium analysis from you letter dated February 3, 2009.

Thanks, Jim. Amanda and I had a good conversation last week. She seemed very happy that we plan to get the dose-response paper out soon and was interested in potentially being part of the tripartite review. I think (b)(5)

(b)(5)

-----Original Message-----

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, July 29, 2009 2:44 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: FW: Follow up on the beryllium analysis from you letter dated February 3, 2009.

FYI

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, July 29, 2009 1:50 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: RE: Follow up on the beryllium analysis from you letter dated February 3, 2009.

Jim,

I got so caught up in some other things that I don't think I got a chance to thank you for responding so quickly to my last email. We breathed a sigh of relief upon hearing that we were finally able to duplicate your results. I did get a chance to talk to Dr.

Schubauer-Berigan late last week as well and she gave me an update on the upcoming beryllium study. I'm very excited and look forward to your published findings.

As for the questions that Dr. Allan Marcus had pertaining to the beryllium data, I've since forwarded them to Chip Lehman as per Mary's suggestion, and I'm awaiting his response.

Thank you again for all your help. It is very much appreciated

Amanda

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| From: |

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>----->
>|"Deddens, James A. (CDC/NIOSH/DSHEFS)" <jad0@cdc.gov>

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| To: |

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>----->
>|Amanda Persad/DC/USEPA/US@EPA

>----->

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| Date: |

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>-----|
|07/23/2009 03:18 PM|

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| Subject: |

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>-----|
|RE: Follow up on the beryllium analysis from you letter dated February 3, 2009.|

Amanda,

I checked and your results are correct.

In the analysis I did for you, I neglected to delete the 2 observations with DOB missing, and I used the earlier Sanderson DOB categories, instead of the Schubauer-Berigan categories as stated in my memo.

I did not do anything special in creating the plots. I used PROC GPLOT, then exported them as *.emf files, then inserted them into WORD.

I need to do a little checking about Allan's questions.

Regards

Jim

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [
mailto:Persad.Amanda@epamail.epa.gov]

Sent: Wednesday, July 22, 2009 4:57 PM

To: Deddens, James A. (CDC/NIOSH/DSHEFS)

Cc: marcus.allan@epa.gov

Subject: RE: Follow up on the beryllium analysis from you letter dated February 3, 2009.

Dr. Deddens,

Thank you so much for the quick turnaround. Your write up was very helpful. We've tried to recreate the analysis, but our output is slightly different than that in your letter (see pdf attachment). Also, I've pasted our program at the end of this email. My colleague that helped with the SAS programming was very interested in the graph from your February letter, not the actual data represented in the graph but rather the development of such a neat graph itself. He works for another division of NCEA and was interested in the development of such graphics for their documents. My colleague would like to know if that done using a special program or coding in SAS?

Also, on a more serious note another colleague of mine, Dr. Allan Marcus, has been exploring the beryllium dataset and came across some interesting findings upon logging 'conc' and 'tenure'. He has a few questions for you regarding the dataset and have thus I've pasted his note to you below. I have also cc'ed him on this email.

Any input you can provide would be greatly appreciated. Thank you again.

Amanda

Dear Dr. Deddens,

I am Allan Marcus, a statistician in EPA's Integrated Risk Information System program, who has been providing some statistical advice to my IRIS colleague Dr. Amanda Persad. I must admit that I have relatively little familiarity with the data set you provided, so please excuse a

few naïve questions. In setting maximum exposure goals for

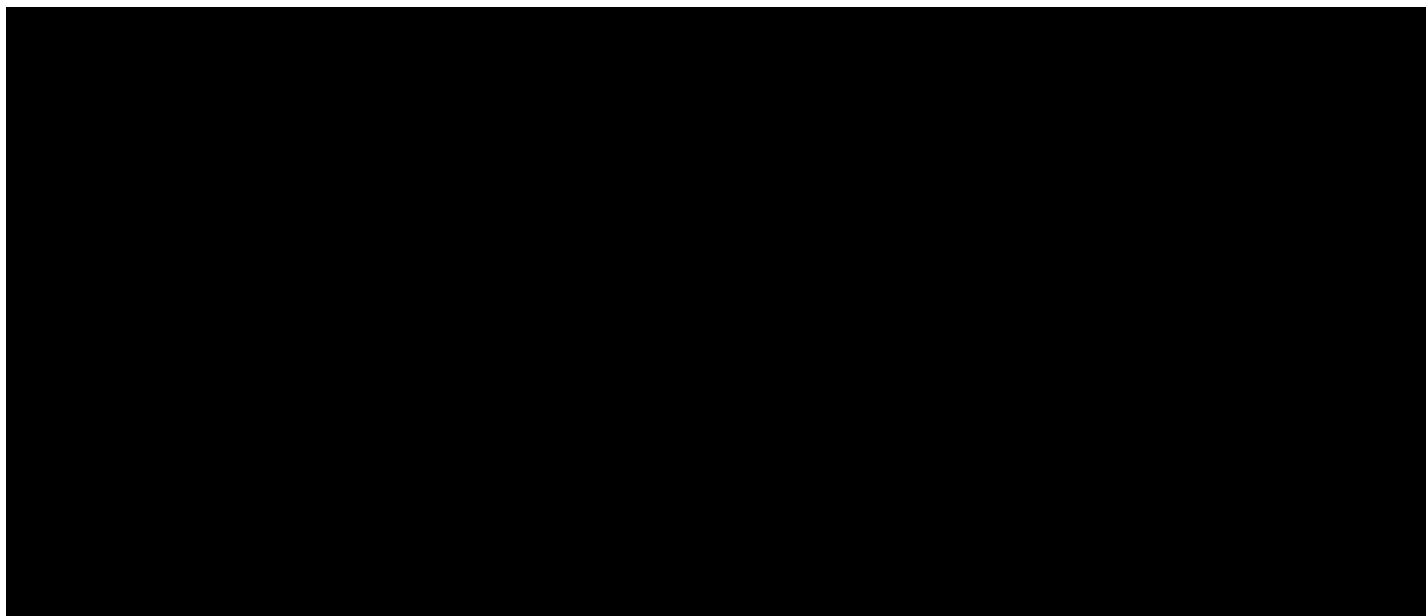
manufactured or natural chemicals, IRIS typically prefers to use continuous dose metrics from which toxicologic points of departure may be inferred for each toxic endpoint by methods similar to inverse regression or interpolation. These methods include use of the BMDS program developed in this center by EPA. My questions focus on differences among dose metrics in the data you provided:

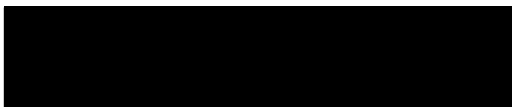
- (1) What are the definitions and relationships among PCDOSE 1-3, MDOS1-3, CONC, CONCDAYS, TENURE, CONCMXDS, and their extensions to LAGS 10 yr and 20 Yr?
- (2) There are a substantial number of missing values in the lagged dose metrics. This inhibits the use of the lagged dose metrics as many individuals will be removed from the analysis. What is your advice on dealing with these issues?

Thanks for your assistance.

Allan Marcus

(See attached file: beryllium 3 segment model.pdf)





Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Monday, December 07, 2009 5:24 PM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Another beryllium question

Amanda,

The National Academies published a report last year on health effects from beryllium exposure. It includes much discussion of chronic beryllium disease, including an evaluation of the beryllium lymphocyte proliferation test (in addition to cancer).

Here's a link to their pub:

http://books.nap.edu/openbook.php?record_id=12464&page=R1

Hope this helps.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, December 07, 2009 3:34 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Another beryllium question

Mary,

I'm trying to follow up on some hearsay information. I was told that NAS has come out with a new report on the impact of beryllium on lymphocytes. I haven't seen anything online to corroborate this. Are you aware of any such report?

Amanda

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Thursday, December 03, 2009 2:11 PM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: New Beryllium Study

Hi Amanda,

We will have two epidemiologic manuscripts. The first one is on track to go out for tripartite review in early January (it's with the peer reviewers now). The second will follow about a month behind it.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Thursday, December 03, 2009 11:38 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: New Beryllium Study

Hi Mary,

Just wanted to know if the tripartite review is still estimated to be in January. My management just called a meeting this afternoon to discuss the beryllium assessment.; thought I'd report any update to the schedule, if any.

Thanks,
Amanda

From: "Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)" <zcg3@cdc.gov>
To: Amanda Persad/DC/USEPA/US@EPA
Date: 10/07/2009 10:42 AM
Subject: RE: New Beryllium Study

Hi Amanda,

No, we have been slightly delayed. My current estimate is that it will be available in early January for tripartite review.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov
[mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, October 05, 2009 11:28 AM

To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)

Subject: New Beryllium Study

Mary,

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Amanda

Amanda S. Persad, Ph.D., DABT

Epidemiologist

Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of
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Email: persad.amanda@epa.gov

Telephone: 919 541 9781

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Friday, October 24, 2008 3:51 PM
To: 'Sullivan.Patricia@epamail.epa.gov'
Cc: Couch, James (CDC/NIOSH/DSHEFS)
Subject: RE: LTAS

Hi Patricia,

The DWA calculation was done years ago by site industrial hygienists in the beryllium industry. James Couch, whom I am copying on this message, is the exposure assessor on our project and will be able to give you much more accurate information than I would about how it was calculated.

Mary

-----Original Message-----

From: Sullivan.Patricia@epamail.epa.gov [mailto:Sullivan.Patricia@epamail.epa.gov]
Sent: Friday, October 24, 2008 3:48 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: LTAS

Thanks Mary. How is the "daily weighted average" calculated?

Patricia Tel. (703)-347-8569

"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHEFS)" To
Patricia Sullivan/DC/USEPA/US@EPA
<zcg3@cdc.gov> cc

10/23/2008 04:20 Subject
PM RE: LTAS

Hi Patricia,

I'm getting to some old emails and just discovered yours, which I don't think I responded to.



Mary

-----Original Message-----

From: Sullivan.Patricia@epamail.epa.gov

[mailto:Sullivan.Patricia@epamail.epa.gov]

Sent: Wednesday, October 01, 2008 5:21 PM

To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)

Subject: LTAS

Mary, I am reading the LTASNET manual, and want to compliment you on the detail provided on how person-time and cumulative exposure are calculated. It is a big improvement. I have a couple of questions.

Question: Is it preferable for the unit of exposure (level) for each day used in the history file to be based on an 8-hour TWA exposure?

Or, should it be total exposure for the day, which might be during a 9.5 hour work day, for example?

Question: What is the limit on the number of exposure levels or categories allowed in the history import file?

Thanks.

Patricia Sullivan, ScD

Tel. (703)-347-8569

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Thursday, October 23, 2008 4:20 PM
To: 'Sullivan.Patricia@epamail.epa.gov'
Subject: RE: LTAS

Hi Patricia,

I'm getting to some old emails and just discovered yours, which I don't think I responded to.

[REDACTED]

[REDACTED]

Mary

-----Original Message-----

From: Sullivan.Patricia@epamail.epa.gov [mailto:Sullivan.Patricia@epamail.epa.gov]
Sent: Wednesday, October 01, 2008 5:21 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: LTAS

Mary, I am reading the LTASNET manual, and want to compliment you on the detail provided on how person-time and cumulative exposure are calculated. It is a big improvement. I have a couple of questions.

Question: Is it preferable for the unit of exposure (level) for each day used in the history file to be based on an 8-hour TWA exposure?

Or, should it be total exposure for the day, which might be during a 9.5 hour work day, for example?

Question: What is the limit on the number of exposure levels or categories allowed in the history import file?

Thanks.

Patricia Sullivan, ScD

Tel. (703)-347-8569

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Friday, January 30, 2009 5:13 PM
To: Lawson, Christina (Tina) (CDC/NIOSH/DSHEFS); Pinkerton, Lynne (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data
Attachments: Response_to_Amanda_final.doc

Tina,

Amanda Persad (from USEPA) has requested some help from me on doing some additional analyses using Wayne's beryllium data--see her 2 emails below. I have finished the analyses and have consulted with Mary Schubauer-Berigan concerning the results and the interpretation for dose-response. I/we have drafted the attached letter to send to Amanda, but I would like to make sure it is OK to send it to her.

Jim

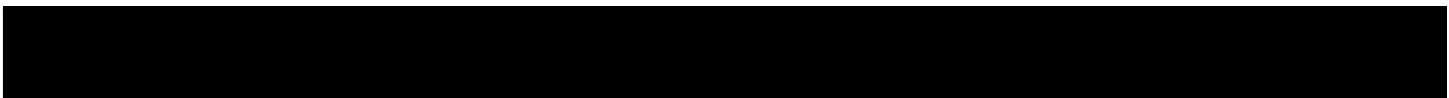
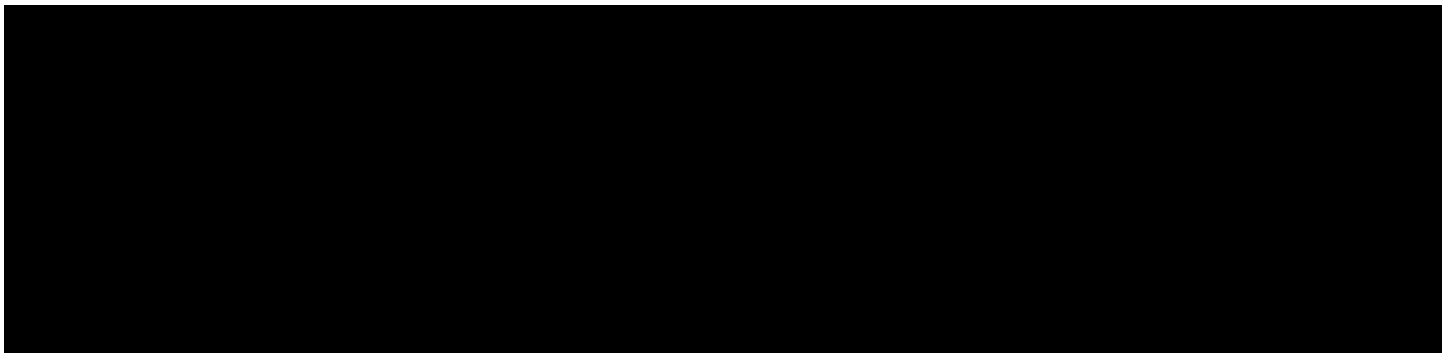
-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, January 21, 2009 2:19 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data

Jim,

Thanks for getting back with me so soon. I was in the middle of responding to your email last week when I had to leave due to a family emergency. Below is the email I had planned to send you.

Kyle suggested using average exposure lagged 10 years from Schubauer-Berigan et al. (2008). Another reviewer, David Kreibel (U.Mass) also suggested average exposure with a 10-year lag (Table 2B, 9th row and Table 3 12th row in Schubauer-Berigan et al. (2008)).



Is my hesitance to use the odds ratio justified? Or is there something I'm missing?

Amanda

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov
[mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, January 13, 2009 10:54 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data

Dr. Deddens,

Happy New Year! I know it's been a while since we've communicated. The new year has brought beryllium taking center stage in my work life yet again. To get you up to speed with what's been going on in IRIS, our draft assessment was reviewed by an external peer review panel last July. In our draft, we didn't derive an inhalation unit risk value, citing some of the methods we attempted, difficulties with reproducing the Sanderson et al. analysis, etc. Also, even though we were privy to the publication of the reanalysis of the Sanderson data by you and Dr. Schubauer-Berigan, we could not add it to the assessment prior to clearance and release to the public.

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Steenland have published on piece-wise linear models in the past, and given your in depth knowledge of the beryllium dataset and the recent reanalysis you published, I'd like to know your thoughts on the using this model on data from the Schubauer-Berigan et al. (2008) paper on beryllium. Would we have to go back to the raw dataset from Sanderson et al. (2001) to apply this approach?

Lastly, in my last conversation with Dr. Schubauer-Berigan, NIOSH was trying to publish results from the multiplant study to be considered for IARC's reevaluation of the beryllium early this year. Do you have any insight if that will be released soon (thus allowing me not to deal with the two-piece linear model approach)?

As for our assessment, we're in the process of responding to comments made by the external peer reviewers. Once that is complete, the assessment goes back to the reviewers for a second look. The draft assessment and compilation of external peer review comments are publicly available (<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=189634>).

I can email you pdf copies if you like.

Any information/ insight/advice that you can provide would be greatly appreciated.

Respectfully,
Amanda Persad

Amanda S. Persad, Ph.D., DABT
Epidemiologist
Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email: persad.amanda@epa.gov
Telephone: 919 541 9781

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Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Thursday, January 29, 2009 9:42 AM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Question on NIOSH beryllium data

No problem, Amanda. Jim and I will be sending you the additional modeling results, probably later today.

Yes, we have been out due to the ice/snow storm. 10" of snow and an inch of ice! No fun.
Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, January 27, 2009 4:55 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

Mary,

I saw that you called yesterday evening prior to sending me the email. I just tried returning your call but I'm guessing, like my-coworkers in EPA-Cincinnati, that you might have been dismissed early today due to the ice storm. I hope everything is okay. I really appreciate all that you and Jim are doing to assist us with our assessment.

Amanda

"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHEFS)"
<zcg3@cdc.gov>
"Deddens, James A."
01/26/2009 05:41 PM
<jad0@CDC.GOV>
Subject
RE: Question on NIOSH beryllium data

To
Amanda Persad/DC/USEPA/US@EPA
cc

Hi Amanda,

Our updated cohort study is not yet completed, so I can't give you that dataset. Eventually this study will have exposure levels for a combined cohort of 5470 workers with mortality followup through 2005.

The cohort data from which Wayne Sanderson drew his cases and controls came from one of the facilities in the cohort study by Ward et al. 1992.

There are no quantitative exposure data available for that entire cohort, outside the updated study I mentioned above, which is not yet completed.

Jim and I are working on getting you some additional analyses he has done, which should be ready in the next few days.

You had asked whether a RR would be available rather than an OR. Because of the method used to select the controls, the OR reported in the paper actually is asymptotically equivalent to the rate ratio (RR)--no "rare disease" justification is needed. Hopefully this will permit you to analyze what you need from our case-control study.

Thanks,

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov

[mailto:Persad.Amanda@epamail.epa.gov]

Sent: Monday, January 26, 2009 5:02 PM

To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)

Subject: Question on NIOSH beryllium data

Dr. Schubauer-Berigan,

I know its been a while since we communicated but beryllium is now back front and center in IRIS. Just a quick question for you, a while back you provided us with a copy of the original dataset from Sanderson et al. (2002). As this was a case-control study, was there a publicly available cohort dataset of beryllium workers?

I know you and your team have been working on updating the data on the original beryllium cohort in order to provide a multi-plant follow-up. Is that going to be published soon? Or is there any publicly available repository of data from which I would be able look at dose-response data based on beryllium exposure?

Okay, it looks like I had more than one quick question, sorry.

Anyway, any info that you can provide would be greatly appreciated.

Thanks,

Amanda Persad

Amanda S. Persad, Ph.D., DABT

Epidemiologist

Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email:persad.amanda@epa.gov

Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Persad.Amanda@epamail.epa.gov
Sent: Tuesday, January 27, 2009 4:55 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

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Amanda

"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHEFS)"
<zcg3@cdc.gov>
To
Amanda Persad/DC/USEPA/US@EPA
cc
"Deddens, James A."
01/26/2009 05:41 (CDC/NIOSH/DSHEFS)"
PM <jad0@CDC.GOV>
Subject
RE: Question on NIOSH beryllium
data

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[mailto:Persad.Amanda@epamail.epa.gov]
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To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
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Amanda S. Persad, Ph.D., DABT

Epidemiologist

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Email:persad.amanda@epa.gov

Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Persad.Amanda@epamail.epa.gov
Sent: Monday, January 26, 2009 8:48 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Cc: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

Mary,

Thank you for the prompt response and the suggestion about using the rare disease justification. I appreciate the time and effort that you and Jim are putting in to get me the additional analysis. The timing is perfect! Also, thanks for the info on the updated cohort study. I'll let my management know.

Thanks again!

Amanda

"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHEFS)"
To
S)" Amanda Persad/DC/USEPA/US@EPA
<zcg3@cdc.gov> cc
"Deddens, James A.
01/26/2009 05:41 PM (CDC/NIOSH/DSHEFS)"
<jad0@CDC.GOV>
Subject
RE: Question on NIOSH beryllium data

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Thanks,

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[mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, January 26, 2009 5:02 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data

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Amanda Persad

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Email:persad.amanda@epa.gov

Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, January 21, 2009 4:17 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data--EPA

Mary,

Here is Amanda's response. She is interested in average dose lagged 10--which I can easily do.

[REDACTED]

You could probably better answer her question about the reference category Let's discuss on Thursday if you have time (and not too hung over from the Inaugural Balls)

Jim

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, January 21, 2009 2:19 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: Re: happy New Year to you as well!!E: Question on NIOSH beryllium data

Jim,

Thanks for getting back with me so soon. I was in the middle of responding to your email last week when I had to leave due to a family emergency. Below is the email I had planned to send you.

Kyle suggested using average exposure lagged 10 years from Schubauer-Berigan et al. (2008). Another reviewer, David Kreibel (U.

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[REDACTED]

Is my hesitance to use the odds ratio justified? Or is there something I'm missing?

Amanda ..

"Deddens, James

A.

(CDC/NIOSH/DSHEF

To

S)"

Amanda Persad/DC/USEPA/US@EPA

<jad0@cdc.gov>

cc

"Schubauer-Berigan, Mary K.

01/14/2009 04:04 (CDC/NIOSH/DSHEFS)"

PM

<zcg3@CDC.GOV>

Subject

Rhappy New Year to you as well!E:

Question on NIOSH beryllium data

Amanda,

Sorry for the delay in responding, but I am not in my NIOSH office every day.

Certainly a piece wise linear model can be fit to the Sanderson BE data as suggested by Kyle.

I'm not sure whether it would give a different picture of the relationship but it is worth a try.

I would be happy to help out.

What metric (cumexp, durexp, aveage or peak) and what lag (0,5,10,15,20) are you interested in??

Jim

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov

[mailto:Persad.Amanda@epamail.epa.gov]

Sent: Tuesday, January 13, 2009 10:54 AM

To: Deddens, James A. (CDC/NIOSH/DSHEFS)

Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)

Subject: Question on NIOSH beryllium data

Dr. Deddens,

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Steenland have published on piece-wise linear models in the past, and given your in depth knowledge of the beryllium dataset and the recent reanalysis you published, I'd like to know your thoughts on the using this model on data from the Schubauer-Berigan et al. (2008) paper on beryllium. Would we have to go back to the raw dataset from Sanderson et al. (2001) to apply this approach?

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I can email you pdf copies if you like.

Any information/ insight/advice that you can provide would be greatly appreciated.

Respectfully,

Amanda Persad

Amanda S. Persad, Ph.D., DABT
Epidemiologist

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Email: persad.amanda@epa.gov
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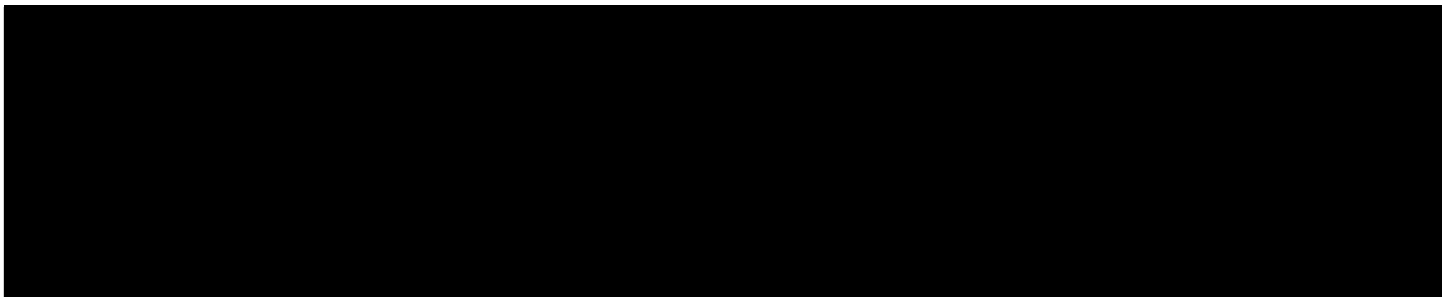
Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Thursday, January 15, 2009 6:14 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: FW: Question on NIOSH beryllium data
Attachments: LAVG10_LIN_PWL_RCS_MODELS_JAN2009.doc

Mary,

Amanda asked me to consider doing a piecewise linear model for the BE study.

I asked her what metric (cumexp, durexp, avg, peak) or lag (0,5,10,15,20) she wanted to use, but I have not hear back from her.



I do not plan on showing any of this to Amanda until I hear from her on which metrics she is interested in, AND until I hear from you. From now on I will always clear any correspondence w/r to BE with you first!!

Have a great weekend

Jim

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, January 13, 2009 10:54 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
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Email: persad.amanda@epa.gov

Telephone: 919 541 9781

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Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, January 14, 2009 4:04 PM
To: 'Persad.Amanda@epamail.epa.gov'
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Rhappy New Year to you as well!!E: Question on NIOSH beryllium data

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Amanda S. Persad, Ph.D., DABT
Epidemiologist
Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email: persad.amanda@epa.gov
Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Persad.Amanda@epamail.epa.gov
Sent: Tuesday, January 13, 2009 10:54 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data

Dr. Deddens,

Happy New Year! I know it's been a while since we've communicated.

The new year has brought beryllium taking center stage in my work life yet again. To get you up to speed with what's been going on in IRIS, our draft assessment was reviewed by an external peer review panel last July. In our draft, we didn't derive an inhalation unit risk value, citing some of the methods we attempted, difficulties with reproducing the Sanderson et al. analysis, etc. Also, even though we were privy to the publication of the reanalysis of the Sanderson data by you and Dr.

Schubauer-Berigan, we could not add it to the assessment prior to clearance and release to the public.

As a result, one of the recurring comments from the reviewers was to add Schubauer-Berigan et al. (2008) to the assessment and use this paper to determine the inhalation unit risk value. Dr. Kyle Steenland was one of the reviewers, and he suggested using a 2-piece linear model to derive the risk value that we need for our assessment. I know that you and Dr.

Steenland have published on piece-wise linear models in the past, and given your in depth knowledge of the beryllium dataset and the recent reanalysis you published, I'd like to know your thoughts on the using this model on data from the Schubauer-Berigan et al. (2008) paper on beryllium. Would we have to go back to the raw dataset from Sanderson et al. (2001) to apply this approach?

Lastly, in my last conversation with Dr. Schubauer-Berigan, NIOSH was trying to publish results from the multiplant study to be considered for IARC's reevaluation of the beryllium early this year. Do you have any insight if that will be released soon (thus allowing me not to deal with the two-piece linear model approach)?

As for our assessment, we're in the process of responding to comments made by the external peer reviewers. Once that is complete, the assessment goes back to the reviewers for a second look. The draft assessment and compilation of external peer review comments are publicly available (<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=189634>). I can email you pdf copies if you like.

Any information/ insight/advice that you can provide would be greatly appreciated.

Respectfully,
Amanda Persad

Amanda S. Persad, Ph.D., DABT
Epidemiologist

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Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 2:05 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

Mary,
Sorry I have no idea what it means to send it to OA-MEO... help
Jim

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Mon 2/2/2009 10:21 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: FW: Question on NIOSH beryllium data

Hi Jim,

You should send the letter to the OA-MEO for preparation. Then give me a copy of the signed letter and I will put it in my project files.

Thanks,

Mary

-----Original Message-----

From: Lawson, Christina (Tina) (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 10:19 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Pinkerton, Lynne (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: FW: Question on NIOSH beryllium data

Hi Jim,
Beth says the letter is good to go. Would you please see that a copy gets into the beryllium project file?

Thanks,
Tina

-----Original Message-----

From: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 10:16 AM
To: Lawson, Christina (Tina) (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

I looked at it and it's fine to send. Would you make sure a copy gets into the beryllium project file?

Thanks,

~ Beth

-----Original Message-----

From: Lawson, Christina (Tina) (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 9:30 AM
To: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Subject: FW: Question on NIOSH beryllium data

Hi Beth,
Please see note from Jim below. Does this need clearance? If so, please let me know the route.

Thanks,
Tina

-----Original Message-----

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Friday, January 30, 2009 5:13 PM
To: Lawson, Christina (Tina) (CDC/NIOSH/DSHEFS); Pinkerton, Lynne (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)

Subject: Question on NIOSH beryllium data

Tina,

Amanda Persad (from USEPA) has requested some help from me on doing some additional analyses using Wayne's beryllium data-- see her 2 emails below. I have finished the analyses and have consulted with Mary Schubauer-Berigan concerning the results and the interpretation for dose-response. I/we have drafted the attached letter to send to Amanda, but I would like to make sure it is OK to send it to her.

Jim

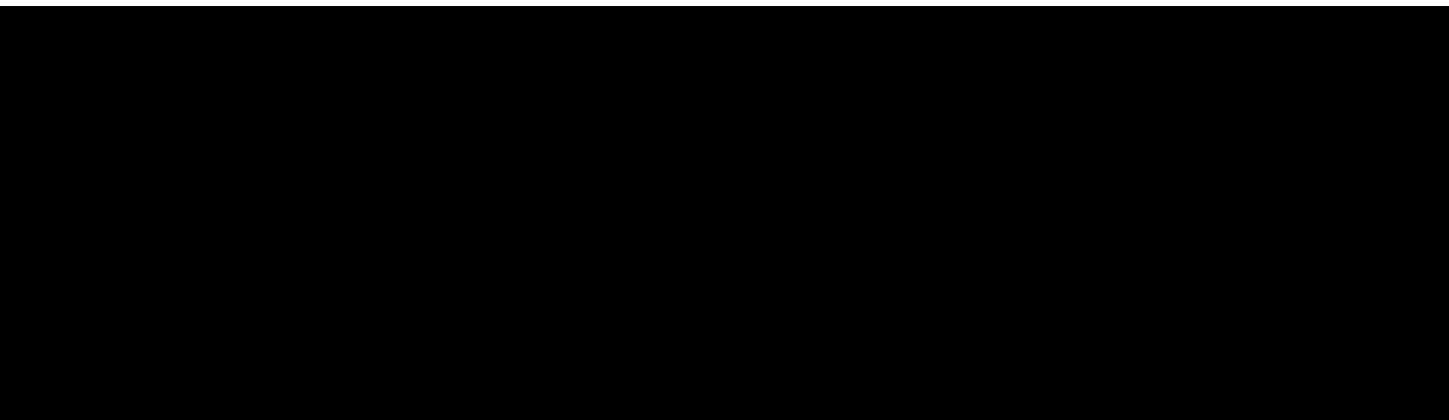
-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [<mailto:Persad.Amanda@epamail.epa.gov>]
Sent: Wednesday, January 21, 2009 2:19 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data

Jim,

Thanks for getting back with me so soon. I was in the middle of responding to your email last week when I had to leave due to a family emergency. Below is the email I had planned to send you.

Kyle suggested using average exposure lagged 10 years from Schubauer-Berigan et al. (2008). Another reviewer, David Kreibel (U.Mass) also suggested average exposure with a 10-year lag (Table 2B, 9th row and Table 3 12th row in Schubauer-Berigan et al. (2008)).



Is my hesitance to use the odds ratio justified? Or is there something I'm missing?

Amanda

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov
[mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, January 13, 2009 10:54 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
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Steenland have published on piece-wise linear models in the past, and given your in depth knowledge of the beryllium dataset and the recent reanalysis you published, I'd like to know your thoughts on the using this model on data from the Schubauer-Berigan et al. (2008) paper on beryllium. Would we have to go back to the raw dataset from Sanderson et al. (2001) to apply this approach?

Lastly, in my last conversation with Dr. Schubauer-Berigan, NIOSH was trying to publish results from the multiplant study to be considered for IARC's reevaluation of the beryllium early this year. Do you have any insight if that will be released soon (thus allowing me not to deal with the two-piece linear model approach)?

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I can email you pdf copies if you like.

Any information/ insight/advice that you can provide would be greatly appreciated.

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Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 3:58 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

I just got here

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 2:07 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

Are you in today? I'll help you.

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Monday, February 02, 2009 2:05 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Question on NIOSH beryllium data

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Sorry I have no idea what it means to send it to OA-MEO... help
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Subject: FW: Question on NIOSH beryllium data

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You should send the letter to the OA-MEO for preparation. Then give me a copy of the signed letter and I will put it in my project files.

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Sent: Monday, February 02, 2009 10:19 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Pinkerton, Lynne (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: FW: Question on NIOSH beryllium data

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Beth says the letter is good to go. Would you please see that a copy gets into the beryllium project file?

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Sent: Wednesday, January 21, 2009 2:19 PM
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[mailto:Persad.Amanda@epamail.epa.gov]
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To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
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Amanda S. Persad, Ph.D., DABT

Epidemiologist

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Email: persad.amanda@epa.gov

Telephone: 919 541 9781

Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, February 04, 2009 5:04 PM
To: 'Defoe, Tiffany - OSHA'
Cc: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: FW: Question on NIOSH beryllium data

Hi Tiffany,

This dose-response analysis of the data in Sanderson et al. (2001) and Schubauer-Berigan (2008), which was requested by EPA for its risk assessment work, might also be of interest to OSHA.

Best wishes,

Mary

Mary Schubauer-Berigan, PhD
Research Epidemiologist
Industrywide Studies Branch
National Institute for Occupational Safety and Health
4676 Columbia Pkwy, MS-R15
Cincinnati, OH 45226
phone: 513-841-4251
fax: 513-841-4486
e-mail: zcg3@cdc.gov

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, February 04, 2009 5:00 PM
To: 'persad.amanda@epamail.epa.gov'
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Question on NIOSH beryllium data

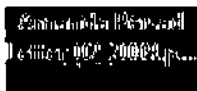
Amanda,

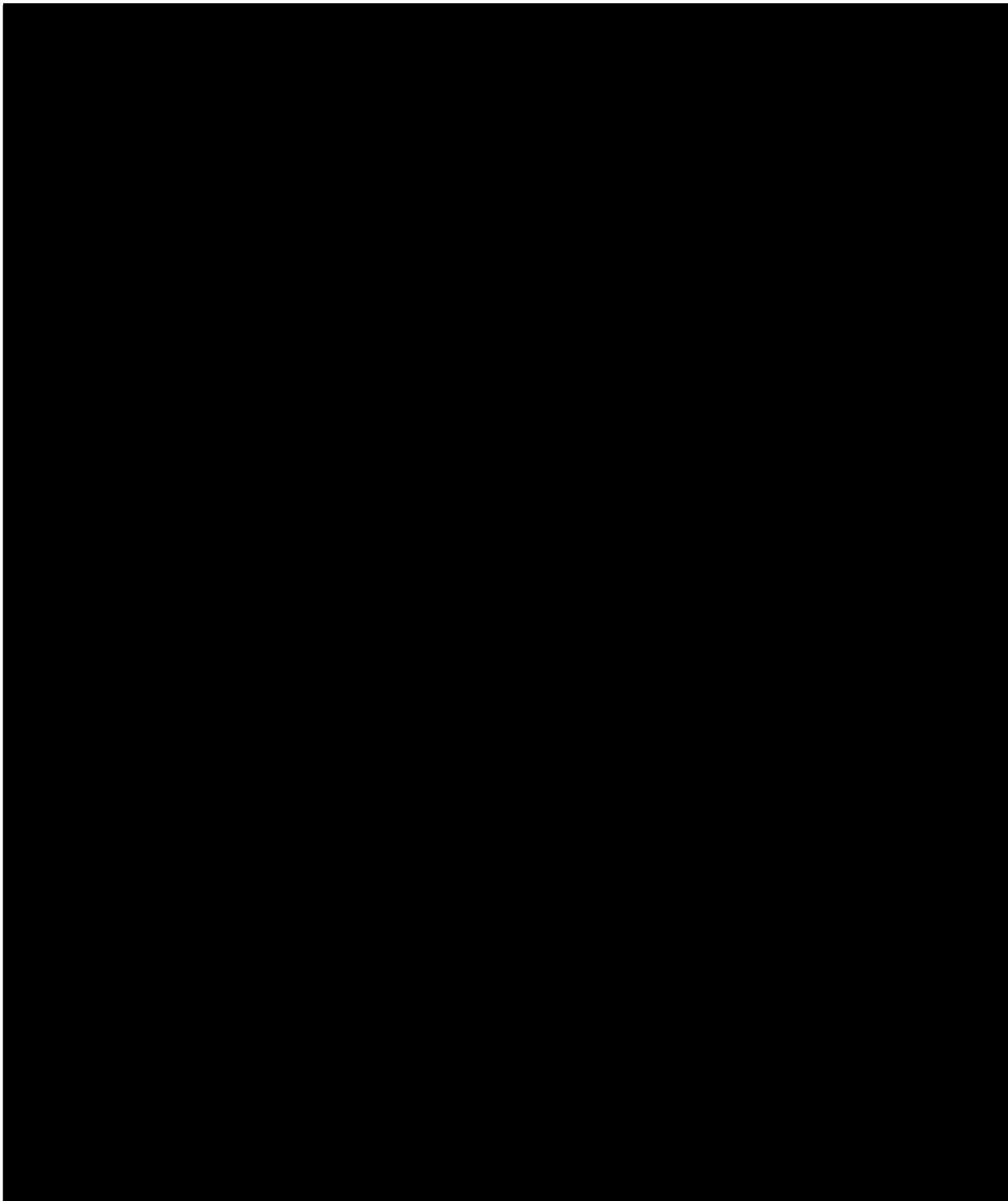
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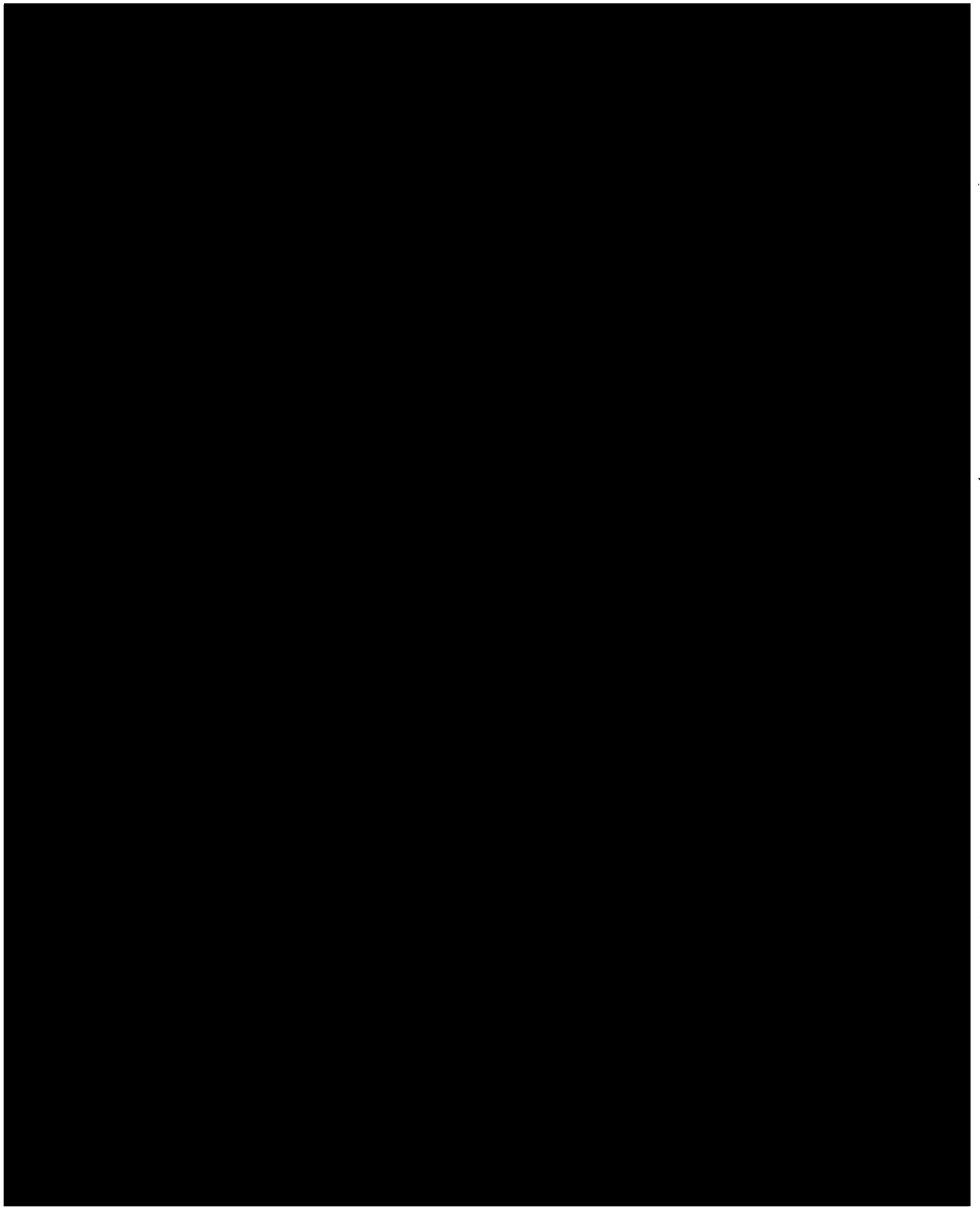
I am also sending a paper copy in the US mail..

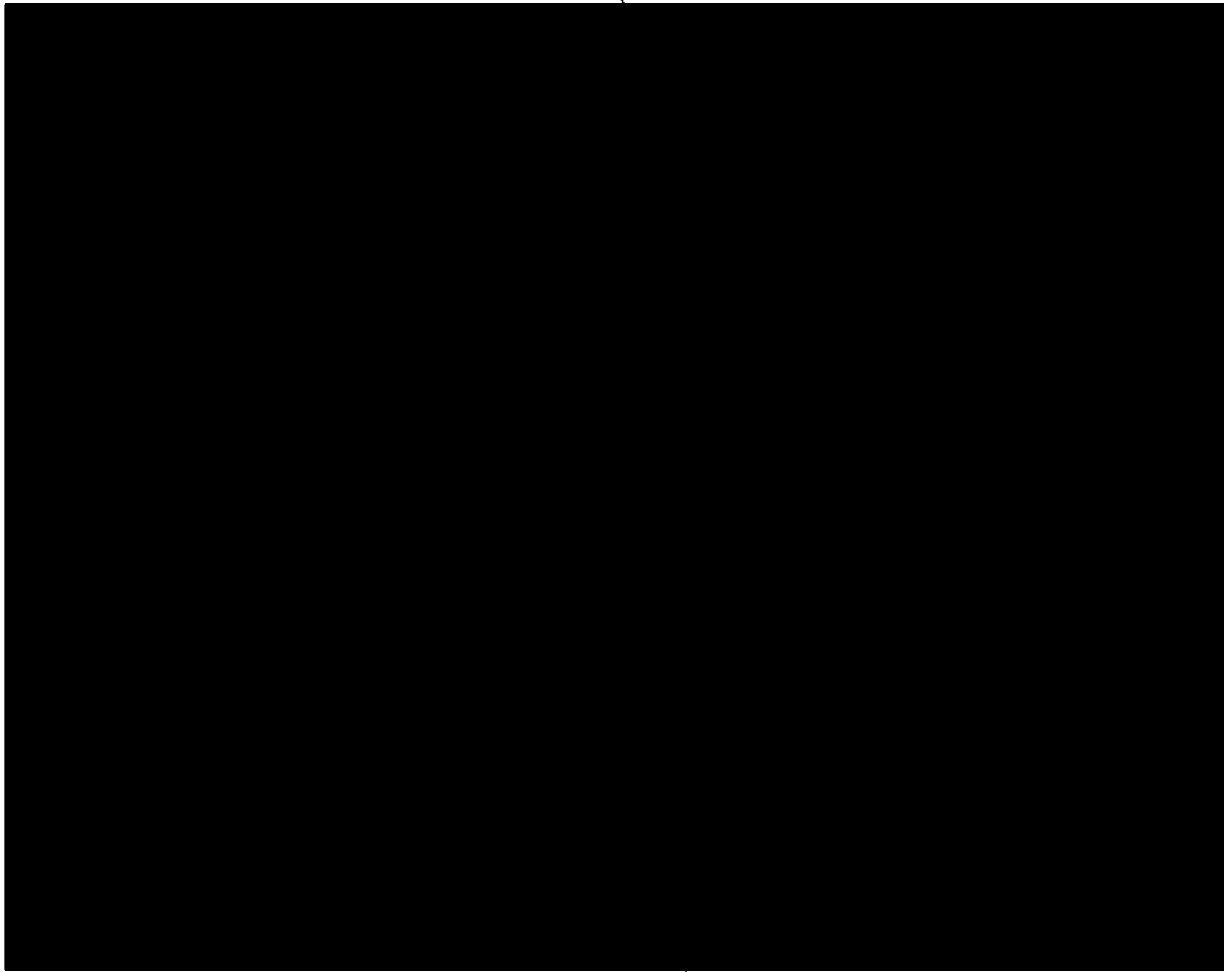
Please let me or Mary know if you have any questions, as we would be glad to help in any way.

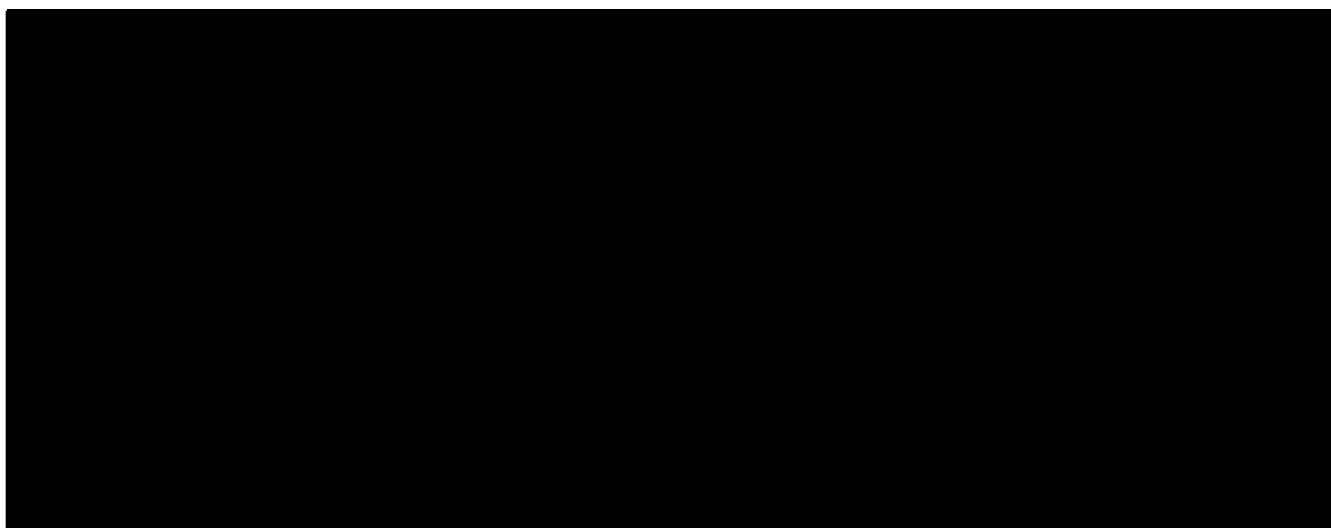
Jim Deddens
NIOSH
1-513-841-4472











Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Persad.Amanda@epamail.epa.gov
Sent: Wednesday, February 04, 2009 9:03 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Re: Question on NIOSH beryllium data

Jim,

Thank you so much! This is greatly appreciated!
Amanda

Amanda S. Persad, Ph.D., DABT

Epidemiologist

Integrated Risk Information System (IRIS) National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S. Environmental Protection Agency Research Triangle Park, NC 27711

Email:persad.amanda@epa.gov

Telephone: 919 541 9781

"Deddens, James

A.

(CDC/NIOSH/DSHEF

To

S)"

Amanda Persad/DC/USEPA/US@EPA

<jad0@cdc.gov>

cc

"Schubauer-Berigan, Mary K.

02/04/2009 05:00 (CDC/NIOSH/DSHEFS)"

PM

<zcg3@CDC.GOV>

Subject

Question on HIOSH beryllium data

Amanda,

In the attached file, I have tried to answer your questions about the analysis of average exposure lagged 10 years in the beryllium study.

I am also sending a paper copy in the US mail..

Please let me or Mary know if you have any questions, as we would be glad to help in any way.

Jim Deddens
NIOSH
1-513-841-4472

<<Amanda Persad Letter_02_2009.pdf>>

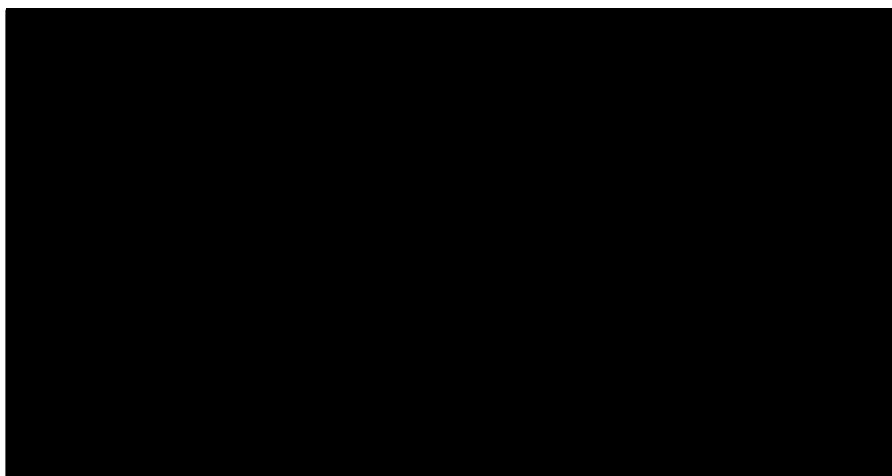
Ehling, William C. (CDC/NIOSH/DSHEFS)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Tuesday, April 28, 2009 2:44 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: email from Amanada

Mary

Here is Amnada's email—sorry I did not have Beth's email (please forward)

Jim



Thank you,
Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist
Integrated Risk Information System (IRIS)
National Center for Environmental Assessment (NCEA)
Mail Code: B-243-01
Office of Research and Development
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

Email: persad.amanda@epa.gov
Telephone: 919 541 9781

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, February 13, 2008 11:13 AM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Beryllium

Hi, Amanda--

Congratulations on your move. We are still working on the exposure assessment for our epidemiology study--we had a bit of a delay resulting from a large amount of new work history information that we found for our cohort members at one of the plants, about a year ago.

No plans currently to present at SOT. My colleagues and I continue to believe that the methods proposed by Deubner, Levy and colleagues are deeply flawed. We have begun work with constructed cohorts that evaluates the bias resulting from adding new criteria for control selection. We have some very interesting results that have been submitted in abstract form for the June SER meeting, with manuscripts to follow shortly thereafter, hopefully.

I will continue to keep you posted, but feel free to give me a call if you'd like.

Best wishes,

Mary

Mary Schubauer-Berigan, PhD
Research Epidemiologist
Industrywide Studies Branch
National Institute for Occupational Safety and Health
4676 Columbia Pkwy, MS-R15
Cincinnati, OH 45226
phone: 513-841-4251
fax: 513-841-4486
e-mail: zcg3@cdc.gov

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, February 12, 2008 2:20 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Beryllium

Mary,

It's been a while since we've talked. My colleagues in IRIS and I have been following the some of the back and forth in the literature regarding some of the methodology issues. It got me thinking... is anyone from your group presenting anything on beryllium at the upcoming SOT conference? Also, when we last talked the projected timeline for the completion of the current multi-plant assessment on beryllium was May 2008, is that still the case? Lastly, on a more personal note, I've moved to NC so my phone number has changed in case you've tried to call me in the past few months.

Amanda

Amanda S. Persad, Ph.D., DABT

Epidemiologist

National Center for Environmental Assessment Mail Code: B-243-01 Office of Research and Development U.S.
Environmental Protection Agency Research Triangle Park, NC 27711

Room B-220-C

Email: persad.amanda@epa.gov

Telephone: 919 541 9781

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, May 16, 2007 3:05 PM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Beryllium
Attachments: LettertoEditor_LevyPaper_to JOEM.doc

Dear Amanda,

Our letter in regard to the JOEM Levy article is attached. Please keep in confidence among your colleagues until it is published in the July or August issue.

I am currently discussing your questions on the IAG process with my supervisors. Our protocol is currently in branch review following peer review. After that it will go to Industry and Labor for review--after that, I will be able to share it with you.

Best wishes,

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, May 16, 2007 2:17 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Beryllium

Mary,

As I said, I'm more of an email person. Two more questions:

1) In your response to Levy et al (2007), how much detail do you give about the your reanalysis of Sanderson et al (2001)? Is it possible to see the response, in order to gauge if we would be able to cite your reanalysis through that document?

2) Any update on the IAG/ protocol email I sent you earlier this week?

Amanda

Title: "Re: Exposure to beryllium and occurrence of lung cancer: a reexamination of findings from a nested case-control study"

Dear Editor:

(b)(5)



(b)(5)

(b)(5)

(b)(5)

(b)(5)

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Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, May 16, 2007 3:02 PM
To: Pinkerton, Lynne (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: Beryllium

Yes, I think that's fine.

~ Beth

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From: Pinkerton, Lynne (CDC/NIOSH/DSHEFS)
Sent: Wednesday, May 16, 2007 2:34 PM
To: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: FW: Beryllium

Beth,
Mary's EPA contact would like to know if Mary can share her letter to the editor (which is in press) in confidence. Like Mary, I assume this is OK but can you confirm?
Thanks.
Lynne

-----Original Message-----

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, May 16, 2007 2:23 PM
To: Pinkerton, Lynne (CDC/NIOSH/DSHEFS)
Subject: FW: Beryllium

Lynne,

My EPA contact would like to know if we can share our letter to the editor in confidence. I presume this is OK because it is now in press, but can you confirm?

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Mary

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Mary,

As I said, I'm more of an email person. Two more questions:

1) In your response to Levy et al (2007), how much detail do you give about the your reanalysis of Sanderson et al (2001)? Is it possible to see the response, in order to gauge if we would be able to cite your reanalysis through that document?

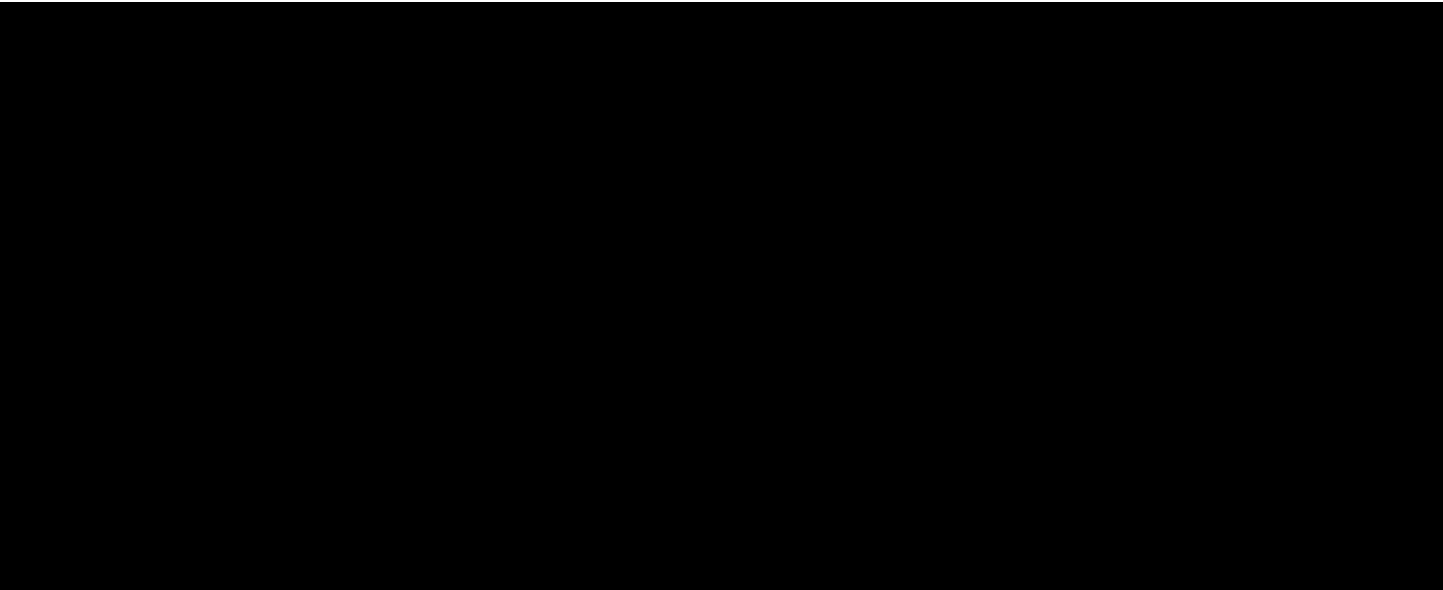
2) Any update on the IAG/ protocol email I sent you earlier this week?

Amanda

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Monday, May 14, 2007 11:08 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Beryllium MOU and protocol

Mary,



As I said I'm pretty new at this, so any info that you can provide to help with the IAG would be greatly appreciated.

Also, will we be able to see a copy of the protocol for the cohort study soon?

Amanda

Amanda S. Persad, Ph.D., DABT

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency

1200 Pennsylvania Ave., NW (8601-D)

Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Tuesday, May 08, 2007 9:46 AM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Beryllium

Dear Amanda,

Thanks very much for looking into the MOU. You make an interesting suggestion for a symposium. Seems to me that it would be worth waiting until we complete our upcoming cohort study before we participate in a lung cancer symposium.

Let me know if you'd like to chat.

Best wishes,

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Friday, May 04, 2007 8:21 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Beryllium

Mary,

It's been a while since we chatted. I still haven't tracked down all the details about the existing MOU between NIOSH and EPA/IRIS, but as soon as I do, I'll let you know. Also, I would like to know your thoughts on a joint symposium on beryllium (along the lines of lung cancer and not a lot of emphasis on sensitization or CBD unless there is something new out there) for this year's Society for Risk Analysis conference (see below).

Our IRIS director suggested the topic, but from an IRIS standpoint, I don't think we have much to offer. I believe you guys have a lot more along those lines. I envisioned maybe 1 or 2 speakers from NIOSH, maybe Steenland or someone historically involved with the beryllium cohort, and maybe someone from industry for their perspective. An EPA person, like myself, could give a brief intro to the subject at the beginning or something.

What do you think?

Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist
National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection
Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

SUBMIT NOW!! CALL FOR PAPERS

The deadline for abstract and symposia proposals for the
Society for Risk Analysis 2007 Annual Meeting

is

Monday May 21, 8:00 pm US Eastern - 5 pm Pacific Symposium Organizers: Make sure to submit your proposal at least a week before the deadline to receive a symposium number. Your presenters will need this number to submit their individual abstracts.

Go to http://www.sra.org/events_2007_meeting.php

SOCIETY FOR RISK ANALYSIS

27th ANNUAL MEETING

San Antonio, Texas

December 9-12, 2007

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Sent: Thursday, April 19, 2007 12:11 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS); Pinkerton, Lynne (CDC/NIOSH/DSHEFS)
Subject: RE: Beryllium and TRAC

Okay, let's try to take advantage of this. The fact that they have an existing MOU with NIOSH makes it much easier. If you both agree that we should pursue, think about what tasks need to be completed, where additional funding could help, and how much would be needed. Let's discuss before you meet with them.

~ Beth

-----Original Message-----

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Thursday, April 19, 2007 10:25 AM
To: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS); Pinkerton, Lynne (CDC/NIOSH/DSHEFS)
Subject: FW: Beryllium and TRAC

Beth and Lynne,

Here is the email from EPA about "collaborating" and possible funding support. Let me know if you would like to participate in this discussion (or if not, what strategies you'd suggest I pursue).

I'll be seeing Amanda at the conference in WestChester next Tuesday, if you can think of a convenient time. Our session is from 1-5 pm, so it would probably have to be over lunch or late morning.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, April 18, 2007 5:59 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Beryllium and TRAC

Dr. Schubauer-Berigan,

I relayed the information about the forthcoming protocol and the timeline for the large cohort study to the upper management within NCEA.

It seems that the data we need for our assessment would be found in your analysis of the larger cohort. I know you're probably very busy, but I was wondering if the IRIS Director (Dr. Abdel Kadry) and I can meet with you for a couple of minutes next Tuesday at the TRAC meeting to talk a little more about how IRIS and NIOSH can work together. Other parts of NCEA have standing memorandums of understanding with NIOSH, so in terms of funds, if needed, I'm sure something can be worked out.

If can spare a few minutes to chat, please let us know. We look forward to meeting you next week!

Amanda

Amanda S. Persad, Ph.D., DABT

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection
Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, April 04, 2007 11:31 AM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: Beryllium cohort study

Amanda,

Regarding the update of the Ward study, we are expecting the study will be completed (and a draft manuscript submitted to a journal) by May 2008. We are still working on the exposure assessment at one of the three plants.

I will be happy to send you a copy of the protocol, but it won't be available for a month or two. We are finishing responding to the peer review right now, and then need to send it to industry and labor for comment.

After that, we had planned to send it to OSHA, EPA and other interested stakeholders for comment.

Hope this will work OK for your needs. If not, let me know if you have specific questions about what we are doing and I'll answer them (e.g., yes, we are planning to look at exposure intensity via peak and average exposure)

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, April 04, 2007 8:54 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: Beryllium cohort study

Good morning Mary,

Thanks again for the pre-publication article, it was very helpful. My manager wanted me to follow up with you about the reanalysis of the Ward et al (1992) study. If I recall correctly, there's about one or 2 years of analysis left, then about 6 months to a year till publication after that, but resources were limited. Was that correct? Your intriguing finding in the most recent study, observing an association between average beryllium exposure and lung cancer, rather than cumulative exposure, really questions if the associated cancer might be driven by acute high intensity exposure rather than duration. We're hoping your multiplant reanalysis will help us better address the dose-response issue. Would it be possible to get a copy of the protocol (cited in your manuscript) to share with my manager?

Amanda

Amanda S. Persad, Ph.D., DABT
Epidemiologist
National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection
Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064
FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Wednesday, August 23, 2006 4:51 PM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: NIOSH beryllium study

Amanda,

Sorry for not replying earlier. It's not a problem for you to work with the data and analyze and publish it; the only thing I'm trying to resolve with folks here is what our role should be, given that we have already decided to move forward with a combined three-site cohort study (I don't think it will be a problem).

Go ahead and fax the completed and signed data use agreement form to me (to the number below) and we can start preparing the files to send to you. I suggest we set up a time to talk about this either tomorrow afternoon or early next week (I'm out Friday).

with best wishes,

Mary

Mary Schubauer-Berigan, PhD
Research Epidemiologist
Industrywide Studies Branch
National Institute for Occupational Safety and Health
5555 Ridge Av, MS-R15
Cincinnati, OH 45213
phone: 513-841-4251
fax: 513-841-4486
e-mail: zcg3@cdc.gov

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, August 22, 2006 11:30 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

I'm just following up on the email I sent last week about possibility of collaborating on a manuscript based on part of the NIOSH dataset. I wanted to get your thoughts on this before I fax the form over to obtain the data. If it not a problem to work together on a manuscript, that focuses on a dose-response model, then how long will it take for us to obtain the data from you once I fax the form over?

Amanda

Amanda
Persad/DC/USEPA/
US To
"Schubauer-Berigan, Mary K.
08/14/2006 12:20 (CDC/NIOSH/DSHF)" <zcg3@cdc.gov>
PM cc

Subject
RE: NIOSH beryllium study
(Document link: Amanda Persad)

Mary,

I got a chance to talk to my supervisor today and she's okay with us requesting the data from you (using the form you sent). The only issue we may have is needing to publish the dose-response analysis so that it undergoes peer-review and would be accessible for public comment. (criteria for the use of data in IRIS assessments: peer-reviewed & accessible to public). We would like it if you would collaborate with us with publishing this manuscript and this should be on a smaller scale as to not undermine the larger, more robust publication you have in mind for the future. Please let me know if using the data to publish a manuscript that can be used in our assessment would be an issue with your group.

Amanda

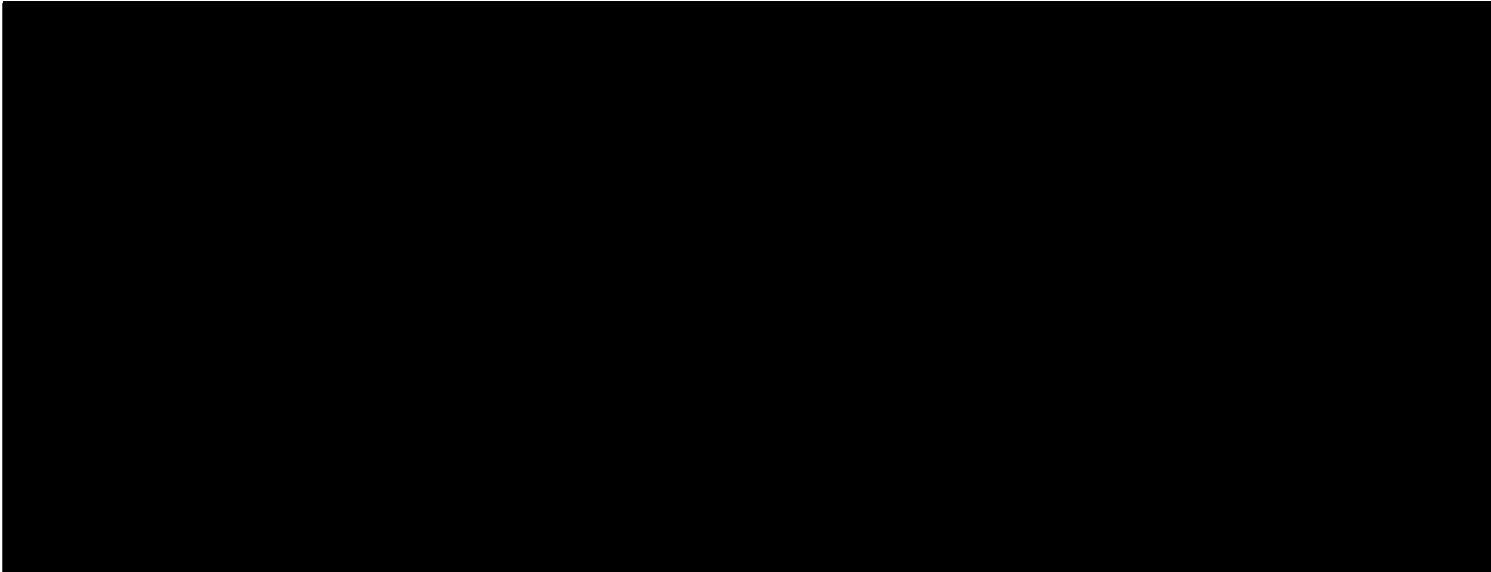
Amanda S. Persad, Ph.D.
Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection
Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064
FAX: 202 565 0075

"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHF)" To
" <zcg3@cdc.gov> Amanda Persad/DC/USEPA/US@EPA
cc
08/04/2006 03:33 "Deddens, James A.
PM (CDC/NIOSH/DSHF)" <jad0@cdc.gov>
Subject
RE: NIOSH beryllium study

Dear Amanda,



I will be out of the office from Aug 7-11, but I'd be happy to talk with you about this when I return on the 14th. In the meantime, Jim may be able to get you the rest of the mean and median values by quartile (for average and maximum dose).

with best wishes,

Mary

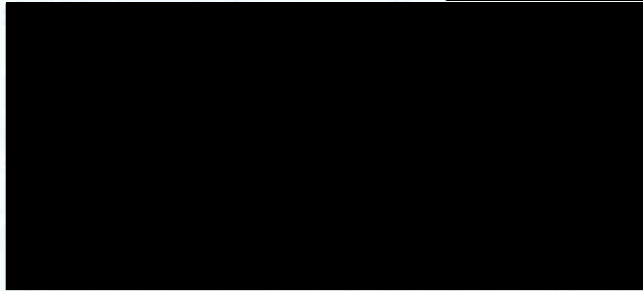
Mary Schubauer-Berigan, PhD
Research Epidemiologist
Industrywide Studies Branch
National Institute for Occupational Safety and Health
5555 Ridge Av, MS-R15
Cincinnati, OH 45213
phone: 513-841-4251
fax: 513-841-4486
e-mail: zcg3@cdc.gov

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov
[mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, July 24, 2006 10:57 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Dr. Schubauer-Berigan,

It was a pleasure talking to you last Thursday. I have had a chance to discuss the issue of obtaining some of the requested numbers with some of my colleagues and have come up with a ranked list based on level of importance. Hopefully, this method would allow us to obtain the numbers we absolutely need for our assessment in a timely fashion without inundating your statistician. [REDACTED]



Whatever information you are able to provide to assist us in modelling beryllium exposure and lung cancer incidence would be greatly appreciated.

Thank you again.

Amanda

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

(See attached file: DUA - Persad beryllium.doc)(See attached file: Table IX means_medians.xls)

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Monday, August 14, 2006 12:48 PM
To: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS); Pinkerton, Lynne (CDC/NIOSH/DSHEFS)
Cc: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: FW: NIOSH beryllium study
Attachments: DUA - Persad beryllium.doc; Table IX means_medians.xls

Beth and Lynne,

FYI--here is a response that I received from EPA on my e-mail to them about the issues that were causing us to revisit beryllium.

Should we meet to discuss how best to react to their response?

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, August 14, 2006 12:20 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

I got a chance to talk to my supervisor today and she's okay with us requesting the data from you (using the form you sent). The only issue we may have is needing to publish the dose-response analysis so that it undergoes peer-review and would be accessible for public comment. (criteria for the use of data in IRIS assessments: peer-reviewed & accessible to public). We would like it if you would collaborate with us with publishing this manuscript and this should be on a smaller scale as to not undermine the larger, more robust publication you have in mind for the future. Please let me know if using the data to publish a manuscript that can be used in our assessment would be an issue with your group.

Amanda

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Epidemiologist
National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064
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"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHF)
<zcg3@cdc.gov>

To
Amanda Persad/DC/USEPA/US@EPA

cc

08/04/2006 03:33 "Deddens, James A.
PM (CDC/NIOSH/DSHF)" <jad0@cdc.gov>
Subject
RE: NIOSH beryllium study

Dear Amanda,



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with best wishes,

Mary

Mary Schubauer-Berigan, PhD
Research Epidemiologist
Industrywide Studies Branch
National Institute for Occupational Safety and Health
5555 Ridge Av, MS-R15
Cincinnati, OH 45213
phone: 513-841-4251
fax: 513-841-4486
e-mail: zcg3@cdc.gov

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov

[mailto:Persad.Amanda@epamail.epa.gov]

Sent: Monday, July 24, 2006 10:57 AM

To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)

Subject: RE: NIOSH beryllium study

Dr. Schubauer-Berigan,

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Whatever information you are able to provide to assist us in modelling beryllium exposure and lung cancer incidence would be greatly appreciated.

Thank you again.

Amanda

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

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(See attached file: DUA - Persad beryllium.doc)(See attached file: Table IX means_medians.xls)

Amanda S. Persad, Ph.D.
Epidemiologist
National Center for Environmental Assessment
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Dear Dr. Persad,

We cannot release the electronic data for our Beryllium case-control study under the Freedom of Information Act since the confidentiality of the death record data, cancer registry data and questionnaire data is protected under a 308(d) assurance of confidentiality. However, we can provide a data file that has individual identifiers deleted, but that retains sufficient information to conduct statistical analyses, if you agree to sign a confidentiality agreement. This "data use agreement" states that you will not attempt to link, nor permit others to attempt to link, the data set with individually identifiable records, and will not release the dataset to, or share the dataset with other individuals or organizations. In addition, this agreement requires you to return the dataset to NIOSH within three years. The agreement must be signed by an individual who has the authority to make these assurances on behalf of the requesting institution, university, company or other organization.

When you complete the section of the agreement where you are asked to provide assurances, all blanks should be filled in with the name of your organization or institution. An envelope is enclosed for your use. Please call Everett Lehman at 513-841-4391 if you have any questions.

Sincerely,

Douglas Trout, M. D.
Associate Director for Science
Division of Surveillance, Hazard
Evaluations and Field Studies
National Institute for Occupational Safety
and Health

Enclosure

DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES
Data Use Agreement

Requested Data File(s): Beryllium Lung Cancer Case-Control Study.

Proposed Use (s) :

In order to conduct occupational cohort mortality studies, the National Institute for Occupational Safety and Health (NIOSH) requests individually identified death record information from the National Death Index (NDI) of the National Center for Health Statistics (NCHS) and from state vital statistics offices. To ensure that the death record information will remain confidential in accordance with the requirements of NCHS and the states, NIOSH has received an Assurance of Confidentiality under Section 308(d) of the Public Health Service Act, 42 U.S.C. ' 242m(d). Section 308(d) provides that no information obtained from a person or establishment may be used for any other purpose than the purpose for which it was supplied unless the persons or establishment gives consent to this use and further that no information identifiable to the individual or establishment may be published or released in any form unless the person or establishment has consented to the release in that form. When NIOSH seeks 308(d) protection for a study, this protection places additional obligations on NIOSH to ensure that the requirements of 308(d) are maintained.

Any effort to determine the identity of any deceased individuals, or to use the information for any purpose other than for epidemiologic and statistical analyses, would violate this statutory restriction and the conditions of this data use agreement. NIOSH has done all it can to assure that the identity of study subjects cannot be disclosed. All direct identifiers, as well as characteristics that might lead to identifications but are not necessary to conduct the analyses, are omitted from the data set. Nevertheless it may be possible in rare instances, through complex analysis and with outside information, to ascertain from the data set the identity of particular persons or establishments. If this were done, the assurances of confidentiality given in obtaining the information would be violated.

Therefore, NIOSH will provide this data set only if the undersigned gives the following assurances:

\$ _____ [Research Institution or Researcher] will not use nor permit others to use the data in these sets in any way except for statistical reporting and analysis;

\$ _____ will not release or share nor permit others to release or share the data sets or any part of them to any person who is not a member of this organization. Any

requests for the dataset will be referred to NIOSH;

- \$ _____ will not attempt to link nor permit others to attempt to link the data set with individually identifiable records from any other data set;
- \$ _____ will not attempt to use the data sets nor permit others to use them to learn the identity of any person or establishment included in any set;
- \$ _____ will restrict access to the data set to those persons who will have a direct role in the research proposal described under Proposed Uses(s).
- \$ _____ will return the original data set to NIOSH within 3 years, and assure NIOSH no copies of the data set have been retained. If there is a need to retain the data set at the end of three years, _____ will request a renewal of the data use agreement from NIOSH.
- \$ _____ [Research institution] will notify NIOSH should the principal investigator be replaced.
- \$ _____ [Research institution] will require any principal investigator who is leaving _____ and wishes to have continued access to the data set to apply for a new agreement with NIOSH.

If _____ should inadvertently discover the identity of any person or establishment, then _____ (a) will not make use of this knowledge, (b) will advise the Director of NIOSH of the incident, (c) will safeguard or destroy the information that would identify an individual or establishment, as requested by NIOSH, and (d) will inform no one else of the discovered identity.

In addition, _____ will make every effort to release all statistical information in such a way as to avoid inadvertent disclosure. For example:

- No figure, including totals, should be less than 3 in tabulations for publication or other dissemination.
- No data on identifiable cases should be derivable through subtraction or other calculation from the combination of tables in a given publication.
- No data should permit disclosure when used in combination with other known data.

_____ will secure and retain identical written assurances from every individual within this organization who has access to this data set.

By signing this agreement on behalf of an institution, university, company or other organization, you are declaring that you are the individual who has the authority to make these assurances on behalf of and to bind this institution, university, company or other organization to the terms of this agreement. Your signature indicates your agreement or your organization=s agreement to

comply with the above-stated requirements with the knowledge that deliberately making a false statement in any matter within the jurisdiction of any department or agency of the Federal Government violates 18 U.S.C. 1001 and is punishable by a fine of up to \$10,000 or up to 5 years in prison.

Name: _____

Title: _____

Organization: _____

Signature: _____ Date: _____

*The type of "official authorized to execute agreements" will, of course, vary among organizations. Whenever possible, this official should be at a higher level of authority than the principal investigator or other person responsible for the study or project; for example, the dean of a college, a vice president of a company, the director of a government division or bureau.

Return the above completed and signed form to:

Dr. Douglas Trout
Associate Director for Science
Division of Surveillance, Hazard Evaluations, and Field Studies
National Institute for Occupational Safety and Health
4676 Columbia Parkway
Cincinnati, OH 45226

I have obtained and will retain signatures from the following individuals within this organization who have access to this NIOSH data file(s):

(Signature) _____ (Date) _____

(Signature) _____ (Date) _____

(Signature) _____ (Date) _____

(Signature) _____ (Date) _____

(Signature) _____ (Date) _____

Requested data for Table IX of Sanderson et al. 2001

(b)(5)



(b)(5)

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Monday, August 14, 2006 12:20 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study
Attachments: DUA - Persad beryllium.doc; Table IX means_medians.xls

Mary,

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Amanda

Amanda S. Persad, Ph.D.
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National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (8601-D)
Washington, D.C., 20460

Telephone: 202 564 2064
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<zcg3@cdc.gov>
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08/04/2006 03:33 PM "Deddens, James A.
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Subject
RE: NIOSH beryllium study

Dear Amanda,

[REDACTED]

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with best wishes,

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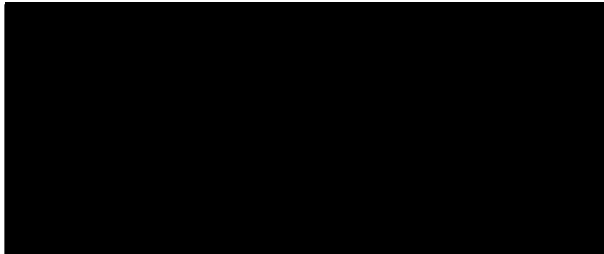
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[REDACTED]



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Thank you again.

Amanda

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

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FAX: 202 565 0075

(See attached file: DUA - Persad beryllium.doc)(See attached file: Table IX means_medians.xls)

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Deddens, James A. (CDC/NIOSH/DSHEFS)
Sent: Thursday, August 10, 2006 7:56 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: NIOSH beryllium study--NUMBERS FOR EPS--ATTACHED
Attachments: GET_WAYNE_NOPROFESSIONALS.sas; OUTPUT_TABLE9_WITH_MEANS.doc; Table IX means_medians_CORRECTED.xls

OOOps I hit the SEND key too soon---here are the attachments

-----Original Message-----

From: Deddens, James A. (CDC/NIOSH/DSHF)
Sent: Thursday, August 10, 2006 7:54 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

I am attaching my SAS program used to compute the numbers requested by Amanda, as well as the SAS output (including the PHREG results as reported in Table IX). I also updated the excel file that you had prepared (the number in the early version for Tenure were not correct).

Please let me know if this is OK.


Jim

-----Original Message-----

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Sent: Friday, August 04, 2006 3:33 PM
To: 'Persad.Amanda@epamail.epa.gov'
Cc: Deddens, James A. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Dear Amanda,

Our statistician (Jim Deddens) has been able to calculate the items requested in numbers 2, 5 and 6, and the information is in the attached Excel file. The requested information for numbers 1, 3, 4 and 7 will be available shortly--I apologize for the delay in getting these numbers to you; I wasn't clear in my initial request to Jim. As you'll see, we also included information on the unlagged data, and for tenure for all lags.



I will be out of the office from Aug 7-11, but I'd be happy to talk with you about this when I return on the 14th. In the meantime, Jim may be able to get you the rest of the mean and median values by quartile (for average and maximum dose).

with best wishes,


Mary

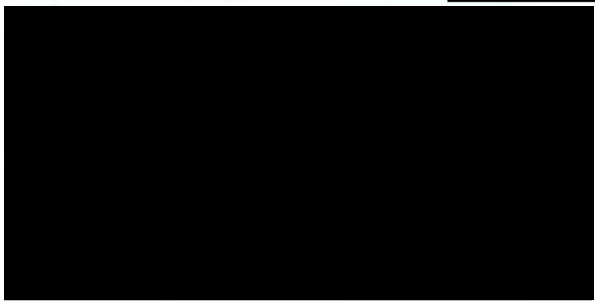
Mary Schubauer-Berigan, PhD
Research Epidemiologist
Industrywide Studies Branch
National Institute for Occupational Safety and Health
5555 Ridge Av, MS-R15
Cincinnati, OH 45213
phone: 513-841-4251
fax: 513-841-4486
e-mail: zcg3@cdc.gov

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Monday, July 24, 2006 10:57 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Dr. Schubauer-Berigan,

It was a pleasure talking to you last Thursday. I have had a chance to discuss the issue of obtaining some of the requested numbers with some of my colleagues and have come up with a ranked list based on level of importance. Hopefully, this method would allow us to obtain the numbers we absolutely need for our assessment in a timely fashion without inundating your statistician. 



Whatever information you are able to provide to assist us in modelling beryllium exposure and lung cancer incidence would be greatly appreciated.

Thank you again.

Amanda

Amanda S. Persad, Ph.D.
Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection
Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

GET_WAYNE_NOPROFESSIONALS

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(b)(5)

Requested data for Table IX of Sanderson et al. 2001

(b)(5)



(b)(5)

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Friday, August 04, 2006 5:25 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Cc: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

Mary & James,

Thank you very much for the form and the data. I'm also going to be on annual leave from the 7th-11th, but I've forwarded your email to my supervisor Karen Hammerstrom. She may be contacting you in my absence.

Mary, I'll try to give you a call on the morning of August 14th and probably have our senior epidemiologist chime in as well.

Thank you again.

Amanda

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency

1200 Pennsylvania Ave., NW (8601-D)

Washington, D.C., 20460

Telephone: 202 564 2064

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Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Friday, August 04, 2006 3:23 PM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

Importance: High

Jim,

Thanks for doing this so quickly. In putting together the table requested by EPA, (b)(5)

(b)(5)

Could you repeat the analyses of medians and means for these two additional metrics? I'll be out all next week, but will copy you on my reply to EPA (which I crafted after raising our concerns with you and Beth--hope you are OK with my phrasing).

Mary

From: Deddens, James A. (CDC/NIOSH/DSHF)
Sent: Friday, July 28, 2006 7:23 AM
To: Petersen, Marty (CDC/NIOSH/DSHF); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary & Marty,

I used the program Marty sent that defines the "non-professional" workers. I have reproduced the results in Table IX from Wayne's paper for cumulative exposure. NOTE: (b)(5)
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Jim

From: Petersen, Marty (CDC/NIOSH/DSHF)
Sent: Thursday, July 27, 2006 4:03 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Cc: Deddens, James A. (CDC/NIOSH/DSHF); Gersic, Christine M. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

Before he left and after he came back, Wayne gave me a lot of his files. I found this one (attached) which I ran and got the same number of people and the same results as in Table IX for cumulative exposure and zero lag.

Marty

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Sent: Monday, July 24, 2006 9:00 AM
To: Petersen, Marty (CDC/NIOSH/DSHF)
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Subject: FW: NIOSH beryllium study

Marty,

As you'll see through the e-mails below, EPA is interested in doing a risk assessment for Be and Lung cancer based on Wayne's analyses excluding professional workers. We are unable to find an indicator for professional status in Wayne's dataset (see attached SAS contents on the file).

According to Wayne's paper, "professional workers were defined as employees holding sales, engineering, research and design, plant management, and administration jobs for greater than half their tenure at the Reading plant." It would be tedious to try to reconstruct this group of workers from the WH data in EDMS. Chris Gersic indicated that you worked with Wayne on the analyses for his beryllium-lung cancer case-control study. Do you perhaps have a dataset that excludes professional workers or has an indicator for professional work status?

thanks,

Mary

From: Deddens, James A. (CDC/NIOSH/DSHF)
Sent: Monday, July 24, 2006 8:41 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

I have reproduced Table II in Wayne's paper. I am having trouble reproducing Table IX. There is no variable indicating "Professional worker". Presumably this was determined using the DEPT or OPER variables (of which there are about 60 of each), but I do not have any information on which values correspond to "Professional Worker". I have tried to look thru all the programs that I have, but have not found any information.

Jim

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Sent: Friday, July 21, 2006 8:20 AM
To: Deddens, James A. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Jim,

I did tell her about the issues with Wayne's analysis (birth cohort and age at hire being very confounded with exposure), but she seemed anxious to continue her analyses using his data. As I see it, we've given fair warning, and it's up to EPA to decide which data it would like to use.

That would be great if you could get something by next week.

thanks,

Mary

From: Deddens, James A. (CDC/NIOSH/DSHF)
Sent: Friday, July 21, 2006 8:01 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

I am out of town until Monday. This sounds like something I could compute using Wayne's data very quickly--like next week. But do we want to encourage them to use Wayne's analyses??

Jim

-----Original Message-----

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Sent: Thu 7/20/2006 11:35 AM
To: Deddens, James A. (CDC/NIOSH/DSHF)
Cc: Whelan, Elizabeth A. (CDC/NIOSH/DSHF); Reed, Larry (CDC/NIOSH/DSHF); Pinkerton, Lynne (CDC/NIOSH/DSHF)
Subject: FW: NIOSH beryllium study

Jim,

I had a conversation with Amanda Persad of US EPA this morning. Their risk assessment group has apparently been waiting since 1998 to produce a risk coefficient for beryllium and lung cancer, pending the publication of NIOSH work (the Sanderson case-control study, apparently--don't know why it took EPA so long to pick up on it).

Amanda has been tasked with restarting their effort and wants get something out relatively quickly. She would like to use the risk coefficients in Table IX of Wayne's study (see attached), but to do so she needs the mean and median exposure levels for each exposure category. She has been unsuccessful in reaching Wayne.

You've had some experience in replicating Wayne's analyses from this paper, given our recent discussions with Deubner. Would you be able to calculate mean and median exposure levels within each quartile for the three metrics (cumulative, average and maximum exposure), for the three different lags shown (0-, 10- and 20-years) in Table IX? Note that these are conducted excluding professional workers.

If we can't help them with this, they would need to FOIA Wayne's dataset and conduct the analyses themselves, but they were hoping to get some help from us to speed things along. Please let me know if you'd have time and interest in helping with this.

I explained to her that we were working on an updated cohort analysis with exposure data, and some of the concerns that have been expressed about the case-control study (and apparently Brush-Wellman visited them last winter to discuss it), but our timeline seems longer than the deadlines they are working under.

thanks, Jim!

Mary

-----Original Message-----

From: Schuler, Christine (CDC/NIOSH/DRDS)
Sent: Wednesday, July 19, 2006 2:51 PM
To: 'Persad.Amanda@epamail.epa.gov'

Cc: Weston, Ainsley (CDC/NIOSH/DRDS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF); Whelan, Elizabeth A. (CDC/NIOSH/DSHF); Schnorr, Teresa M. (CDC/NIOSH/DSHF)

Subject: RE: NIOSH beryllium study

Dr. Persad:

The point person for the beryllium cancer work is Mary Schubauer-Berigan of our Cincinnati office. She is responsible for the dataset you are interested in.

There are plans to reanalyze the beryllium cancer data, both by Dr. Schubauer-Berigan's group (who have been updating the dataset) and by one of the beryllium companies.

Christine Schuler

-----Original Message-----

From: Weston, Ainsley (CDC/NIOSH/DRDS)
Sent: Wednesday, July 19, 2006 2:17 PM
To: Schuler, Christine (CDC/NIOSH/DRDS)
Subject: FW: NIOSH beryllium study

Please help

Ainsley Weston
Associate Director for Science
Division of Respiratory Disease Studies NIOSH Morgantown, WV 26505
(304) 285-6221
(304) 285-5861 FAX
agw8@cdc.gov

-----Original Message-----

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Sent: Wednesday, July 19, 2006 2:17 PM
To: 'Persad.Amanda@epamail.epa.gov'
Subject: RE: NIOSH beryllium study

I am going to refer you to Christine Schuler (she may refer you to Bob Park or Chris Sofge)

Christine can you field this one?

Ainsley Weston
Associate Director for Science
Division of Respiratory Disease Studies NIOSH Morgantown, WV 26505
(304) 285-6221
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From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, July 19, 2006 1:15 PM
To: Weston, Ainsley (CDC/NIOSH/DRDS)
Subject: NIOSH beryllium study

Dear Dr. Weston,

Dr. Channa Keshava provided me with your contact information a couple months ago, as your research focuses beryllium and I am the chemical manager of the IRIS beryllium assessment. The reason for my email is that I am trying to locate data that would aide in calculating an inhalation unit risk (IUR) in our cancer assessment. The Sanderson et al studies from 2001, based on the NIOSH beryllium cohort, as well as a couple tidbits from the NIOSH website suggest that there is robust dataset on beryllium exposure and lung cancer risk. I was wondering if you might know a point of contact that would help in our search to gather data for the derivation of an IUR.

Any information you can provide would be greatly appreciated.

Respectfully,

Amanda Persad

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564-2064

FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Tuesday, August 01, 2006 8:26 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

That is pretty quick!! Thank you so much!
Amanda

"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHF)
<zcg3@cdc.gov>" To
Amanda Persad/DC/USEPA/US@EPA
cc
08/01/2006 08:10
AM Subject
RE: NIOSH beryllium study

Dear Amanda,

It took us a bit of time to identify the "professional" variable in the dataset, but we have just finished the analyses. I should be able to get you the exposure values you seek by the end of the day today.

thanks for your patience.

Mary

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov
[mailto:Persad.Amanda@epamail.epa.gov]
Sent: Tuesday, August 01, 2006 7:33 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: NIOSH beryllium study

Good morning Dr. Schubauer-Berigan,

I just wanted to know if you were able to talk your statistician about the feasibility of obtaining the average exposure values.

Amanda

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

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To: Petersen, Marty (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study
Attachments: WAYNE_NO_PROFESSIONALS.doc; GET_WAYNE_NOPROFESSIONALS.sas

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Amanda S. Persad, Ph.D.
Epidemiologist
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Telephone: 202 564 2064
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Cc: Deddens, James A. (CDC/NIOSH/DSHEFS); Gersic, Christine M. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

Marty,

That's great--the program even indicates which departments and jobs were identified as belonging to professional workers, so we can use this information on the full Reading cohort.

Jim, would you like to copy those SAS statements to your program and regenerate the analyses (and data) that EPA is seeking?

Thanks so much!

Mary

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To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
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To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

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Sent: Wednesday, July 19, 2006 2:51 PM

To: 'Persad.Amanda@epamail.epa.gov'

Cc: Weston, Ainsley (CDC/NIOSH/DRDS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF); Whelan, Elizabeth A. (CDC/NIOSH/DSHF); Schnorr, Teresa M. (CDC/NIOSH/DSHF)

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To: Schuler, Christine (CDC/NIOSH/DRDS)

Subject: FW: NIOSH beryllium study

Please help

Ainsley Weston
Associate Director for Science
Division of Respiratory Disease Studies NIOSH Morgantown, WV 26505
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1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064
FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Petersen, Marty (CDC/NIOSH/DSHEFS)
Sent: Thursday, July 27, 2006 4:03 PM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Cc: Deddens, James A. (CDC/NIOSH/DSHEFS); Gersic, Christine M. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study
Attachments: noprdosa.sas

Mary,
Before he left and after he came back, Wayne gave me a lot of his files. I found this one (attached) which I ran and got the same number of people and the same results as in Table IX for cumulative exposure and zero lag.

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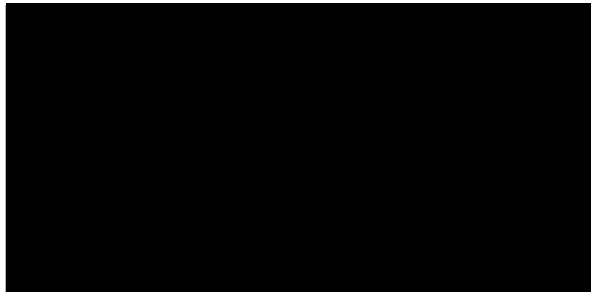
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To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
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Whatever information you are able to provide to assist us in modelling beryllium exposure and lung cancer incidence would be greatly appreciated.

Thank you again.

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I am going to refer you to Christine Schuler (she may refer you to Bob Park or Chris Sofge)

Christine can you field this one?

Ainsley Weston
Associate Director for Science
Division of Respiratory Disease Studies NIOSH Morgantown, WV 26505
(304) 285-6221
(304) 285-5861 FAX
agw8@cdc.gov

-----Original Message-----

From: Persad.Amanda@epamail.epa.gov [mailto:Persad.Amanda@epamail.epa.gov]
Sent: Wednesday, July 19, 2006 1:15 PM
To: Weston, Ainsley (CDC/NIOSH/DRDS)

Subject: NIOSH beryllium study

Dear Dr. Weston,

Dr. Channa Keshava provided me with your contact information a couple months ago, as your research focuses beryllium and I am the chemical manager of the IRIS beryllium assessment. The reason for my email is that I am trying to locate data that would aide in calculating an inhalation unit risk (IUR) in our cancer assessment. The Sanderson et al studies from 2001, based on the NIOSH beryllium cohort, as well as a couple tidbits from the NIOSH website suggest that there is robust dataset on beryllium exposure and lung cancer risk. I was wondering if you might know a point of contact that would help in our search to gather data for the derivation of an IUR.

Any information you can provide would be greatly appreciated.

Respectfully,

Amanda Persad

Amanda S. Persad, Ph.D.

Epidemiologist

National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Sent: Friday, July 21, 2006 8:20 AM
To: Deddens, James A. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

Jim,

I did tell her about the issues with Wayne's analysis (birth cohort and age at hire being very confounded with exposure), but she seemed anxious to continue her analyses using his data. As I see it, we've given fair warning, and it's up to EPA to decide which data it would like to use.

That would be great if you could get something by next week.

thanks,

Mary

From: Deddens, James A. (CDC/NIOSH/DSHF)
Sent: Friday, July 21, 2006 8:01 AM
To: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Subject: RE: NIOSH beryllium study

Mary,

I am out of town until Monday. This sounds like something I could compute using Wayne's data very quickly--like next week. But do we want to encourage them to use Wayne's analyses??

Jim

-----Original Message-----

From: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF)
Sent: Thu 7/20/2006 11:35 AM
To: Deddens, James A. (CDC/NIOSH/DSHF)
Cc: Whelan, Elizabeth A. (CDC/NIOSH/DSHF); Reed, Larry (CDC/NIOSH/DSHF); Pinkerton, Lynne (CDC/NIOSH/DSHF)
Subject: FW: NIOSH beryllium study

Jim,

I had a conversation with Amanda Persad of US EPA this morning. Their risk assessment group has apparently been waiting since 1998 to produce a risk coefficient for beryllium and lung cancer, pending the publication of NIOSH work (the Sanderson case-control study, apparently--don't know why it took EPA so long to pick up on it).

Amanda has been tasked with restarting their effort and wants get something out relatively quickly. She would like to use the risk coefficients in Table IX of Wayne's study (see attached), but to do so she needs the mean and median exposure levels for each exposure category. She has been unsuccessful in reaching Wayne.

You've had some experience in replicating Wayne's analyses from this paper, given our recent discussions with Deubner. Would you be able to calculate mean and median exposure levels within each quartile for the three metrics (cumulative, average and maximum exposure), for the three different lags shown (0-, 10- and 20-years) in Table IX? Note that these are conducted excluding professional workers.

If we can't help them with this, they would need to FOIA Wayne's dataset and conduct the analyses themselves, but they were hoping to get some help from us to speed things along. Please let me know if you'd have time and interest in helping with this.

I explained to her that we were working on an updated cohort analysis with exposure data, and some of the concerns that have been expressed about the case-control study (and apparently Brush-Wellman visited them last winter to discuss it), but our timeline seems longer than the deadlines they are working under.

thanks, Jim!

Mary

-----Original Message-----

From: Schuler, Christine (CDC/NIOSH/DRDS)

Sent: Wednesday, July 19, 2006 2:51 PM

To: 'Persad.Amanda@epamail.epa.gov'

Cc: Weston, Ainsley (CDC/NIOSH/DRDS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF); Whelan, Elizabeth A. (CDC/NIOSH/DSHF); Schnorr, Teresa M. (CDC/NIOSH/DSHF)

Subject: RE: NIOSH beryllium study

Dr. Persad:

The point person for the beryllium cancer work is Mary Schubauer-Berigan of our Cincinnati office. She is responsible for the dataset you are interested in.

There are plans to reanalyze the beryllium cancer data, both by Dr. Schubauer-Berigan's group (who have been updating the dataset) and by one of the beryllium companies.

Christine Schuler

-----Original Message-----

From: Weston, Ainsley (CDC/NIOSH/DRDS)

Sent: Wednesday, July 19, 2006 2:17 PM

To: Schuler, Christine (CDC/NIOSH/DRDS)

Subject: FW: NIOSH beryllium study

Please help

Ainsley Weston

Associate Director for Science

Division of Respiratory Disease Studies NIOSH Morgantown, WV 26505

(304) 285-6221

(304) 285-5861 FAX

agw8@cdc.gov

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To: 'Persad.Amanda@epamail.epa.gov'

Subject: RE: NIOSH beryllium study

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Telephone: 202 564 2064
FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Reed, Larry (CDC/NIOSH/DSHEFS)
Sent: Wednesday, July 19, 2006 4:14 PM
To: Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS); Schnorr, Teresa M. (CDC/NIOSH/DSHEFS); Trout, Douglas (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

Thanks, Beth

This sounds like possible good use of our data for national impact.

Larry

-----Original Message-----

From: Whelan, Elizabeth A. (CDC/NIOSH/DSHF)
Sent: Wednesday, July 19, 2006 3:02 PM
To: Reed, Larry (CDC/NIOSH/DSHF)
Cc: Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF); Schnorr, Teresa M. (CDC/NIOSH/DSHF)
Subject: FW: NIOSH beryllium study

Larry -- fyi, we have just learned that EPA is also conducting a risk assessment of beryllium. They heard about our work from Christine Schuler. Mary is going to call Amanda Persad at EPA, describe our efforts, and offer to share the exposure monitoring data that we have also offered to share with OSHA.

~ Beth

-----Original Message-----

From: Schuler, Christine (CDC/NIOSH/DRDS)
Sent: Wednesday, July 19, 2006 2:51 PM
To: 'Persad.Amanda@epamail.epa.gov'
Cc: Weston, Ainsley (CDC/NIOSH/DRDS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHF); Whelan, Elizabeth A. (CDC/NIOSH/DSHF); Schnorr, Teresa M. (CDC/NIOSH/DSHF)
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Christine Schuler

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Sent: Wednesday, July 19, 2006 2:17 PM
To: Schuler, Christine (CDC/NIOSH/DRDS)
Subject: FW: NIOSH beryllium study

Please help

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National Center for Environmental Assessment Office of Research and Development U.S. Environmental Protection
Agency 1200 Pennsylvania Ave., NW (8601-D) Washington, D.C., 20460

Telephone: 202 564 2064

FAX: 202 565 0075

Bullard, Adrienne (CDC/NIOSH/DSHEFS) (CTR)

From: Persad.Amanda@epamail.epa.gov
Sent: Wednesday, July 19, 2006 3:05 PM
To: Schuler, Christine (CDC/NIOSH/DRDS)
Cc: Weston, Ainsley (CDC/NIOSH/DRDS); Whelan, Elizabeth A. (CDC/NIOSH/DSHEFS); Schnorr, Teresa M. (CDC/NIOSH/DSHEFS); Schubauer-Berigan, Mary K. (CDC/NIOSH/DSHEFS)
Subject: RE: NIOSH beryllium study

Drs. Weston and Schuler,

Thank you for the prompt response. I look forward to hearing from Dr. Schubauer-Berigan.

Thank you again.

Amanda S. Persad

"Schuler,
Christine
(CDC/NIOSH/DRDS)
" <zie9@cdc.gov> To
Amanda Persad/DC/USEPA/US@EPA
cc
07/19/2006 02:50 "Weston, Ainsley
PM (CDC/NIOSH/DRDS)" <agw8@cdc.gov>,
"Schubauer-Berigan, Mary K.
(CDC/NIOSH/DSHF)" <zcg3@cdc.gov>,
"Whelan, Elizabeth A.
(CDC/NIOSH/DSHF)" <eaw0@cdc.gov>,
"Schnorr, Teresa M.
(CDC/NIOSH/DSHF)" <ths1@cdc.gov>
Subject
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Schubauer-Berigan's group (who have been updating the dataset) and by one of the beryllium companies.

Christine Schuler

From: Seel.Lynn@epamail.epa.gov
To: [Petersen, Marty \(CDC/NIOSH/DSHEFS\) \(CTR\)](#)
Cc: [Couch, James \(CDC/NIOSH/DSHEFS\)](#)
Subject: Re: FW: FW: Hazelton variables
Date: Friday, February 27, 2009 11:24:54 AM
Attachments: [Copy of jem dictionary.doc](#)

Hi Marty, James,

Would it be possible for me to come in and go over some of these questions with the two of you while I am in town next Thurs or Fri? It is really hard for me to recall all of this without sitting down and reorienting myself again. I am really sorry I can't be more help from a distance, but I would glad to come in and spend a some time. My flight gets in Thursday at 1. I could come by around 2ish. Friday morning I have a meeting at Alexander's school but I could meet after lunch. Let me know if either of those days will work.

Thanks,

Lynn

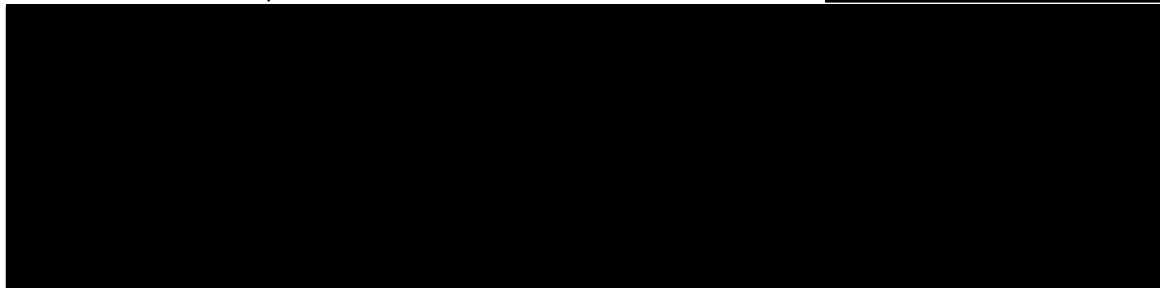
"Petersen, Marty (CDC/NIOSH/DSHEFS) (CTR)"
<mrp1@cdc.gov>

02/26/2009 10:54 AM

To: Lynn Seel/LV/USEPA/US
cc: "Couch, James (CDC/NIOSH/DSHEFS)" <ahy1@CDC.GOV>
Subject: FW: FW: Hazelton variables

Lynn,

I do have some more questions. I have them marked in the attachment. 



Thanks a lot for your help. I hope all is going well for you.

Marty

From: Couch, James (CDC/NIOSH/DSHEFS)
Sent: Thursday, February 26, 2009 9:48 AM
To: 'Seel.Lynn@epamail.epa.gov'
Cc: Petersen, Marty (CDC/NIOSH/DSHEFS) (CTR)
Subject: RE: FW: Hazelton variables

Hello Lynn,

I think Marty had some additional questions about the JEM that he would like to discuss with you so I Cc'd him on this email.

Marty, I apologize for not getting to this early but as you know I've been out of the office this week. Please feel free to send Lynn your questions. I'm sure she doesn't mind helping us out.

Thanks everyone.

James

From: Seel.Lynn@epamail.epa.gov [mailto:Seel.Lynn@epamail.epa.gov]
Sent: Monday, February 23, 2009 2:05 PM
To: Couch, James (CDC/NIOSH/DSHEFS)
Subject: Re: FW: Hazelton variables

Hi James,
Sorry it took me a little while to respond to you. I was in training all last week and opened your email last Friday and then forgot to reply. The quickie answer is that those variables are AMs. We decided against the GM way back when we were wrestling with these issues with Wayne. I hope that will help and please don't hesitate to get in touch when you have any questions. How is the analysis going?
Lynn

"Couch, James (CDC/NIOSH/DSHEFS)" <ahy1@cdc.gov>

02/18/2009 10:40 AM

To Lynn Seel/LV/USEPA/US
cc
Subject FW: Hazelton variables

Hi Lynn,

First, hope that all is well in Vegas.

Secondly, would you mind looking over this JEM dictionary really quick and answer a couple of quick questions about the Hazelton variables. Was it the geometric mean for the DWA? For some reason I was thinking it was the AM.

Marty has ??? Where he isn't sure what the variable stands for and it would help us out a lot. Thanks and hope all is well.

James C.

From: Petersen, Marty (CDC/NIOSH/DSHEFS) (CTR)

Sent: Wednesday, February 18, 2009 10:16 AM

To: Couch, James (CDC/NIOSH/DSHEPS)

Subject: Hazleton variables

James,

Attached is the Hazleton JEM variable list.

Marty

<<Copy of jem dictionary.doc>>

Hazleton

